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THE LANCET IN DENTITION.

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Of Philadelphia.

It is noted by Southey, in his common-place book, "The Doctor," that "Progers, who had been about the person of Charles the Second, died at ninety-six, in cutting his teeth. He had four, and many others were coming, which so inflamed his gums that it proved fatal." Poor old Progers! "Cutting of the teeth" is, rightly or wrongly, credited popularly, with the destruction of many lives, and it would seem from this case that it is liable to be accused of being at work even in the terminal stage of existence. In the nursery it has always, perhaps, been regarded as a very serious matter. Nevertheless, this common belief, like many another, may not be well founded. Cumulative tradition has possibly served to, at least excessively emphasize the balefulness of the process. It may, however, be taken for granted, I believe, that the amount of suffering experienced by children in general while getting their primary teeth is very considerable. It causes decided uneasiness in almost all, and decided danger in some. If it rarely or never destroys life directly, it certainly not unfrequently does indirectly. But I am not sure that it is entirely wrong to give it as the actual cause of death in not a few cases. This is at any rate done. In Philadelphia, about thirty deaths are attributed to it, on the average, yearly, in the bills of mortality. During the census year ending June 30th, 1870, there were three thousand

two hundred and forty-seven deaths attributed to it in the United States. There is assuredly some ground for the prevailing belief that dentition is the direct or indirect source from which flow many of the ills and a large share of the mortality of babies.

It would appear, however, that there are some physicians who seriously regard the coming of the teeth as an extremely innocent matter, being, as they say, a purely physiological process. I would advise such that it is assuming a great deal to take it for granted that dentition is in all cases a purely physiological process. Perhaps in no child is it absolutely physiological; it is at best only approximately physiological. In a recent address, Dr. B. W. Richardson went so far as to declare that he "had never seen a healthy child," never one "that had not in it either some actual or latent constitutional disease." At any rate, there is good reason for believing that in a large proportion of children, especially in large cities, dentition is of decidedly pathological import. As is true of many other troubles, it generally tends to be more marked in proportion to the degree of unhealthiness of the child. And let it be borne in mind that the sensibility of all infants is great, and of some sickly ones such that even a trifling irritation may be followed by serious constitutional and other effects.

But it is not my purpose to speak of the subject of dentition. This has been done very well in a lecture published in this journal recently. It may be well, however, to say, in the words of John Hunter, in his admirable treatise on the natural history and diseases of the teeth, "the symptoms are so various in

different children, and often in the same child, that it is difficult to conceive them to be from the same origin, and the varieties are such as seem to be beyond our knowledge."

Now, when to the discerning senses of the observing, sensible physician a child is suffering severely from the eruption of one or more teeth, relief should, of course, be procured as soon as possible. How is this end to be attained? The advice given by many amounts to little more than to use a soothing-syrup—a la Winslow—of some sort. Meeting the various indications is, in truth, in numerous cases, far from being an easy matter. Such measures as serve to favor the general health are particularly indicated in every case. Careful regulation of the diet, daily bathing and a fair amount of exercise, especially in the open air, are among the items of great significance. Make the process as little pathological as possible by making the condition of the child as physiological as possible. Anodynes, antacids, febrifuges and other remedies, including local applications, may or may not be called for. But I believe the remedy most imperiously called for, in at least bad cases, lies in the use of the lancet.

Of the use of the lancet in dentition it is curious to observe how different are the opinions entertained. Some do not hesitate to say that it is of no value. Thus, in a recent widely circulated work on the diseases of children, by Dr. Henoeh, a Berlin practitioner of seemingly large experience, it is said: "It is now generally held that every attempt to facilitate the eruption of the teeth, and thus remove the symptoms due to difficult dentition, is absolutely useless. I have in earlier years performed scarification with sufficient frequency to convince myself of its entire inutility; and it even appears to me that the cicatrix formed may increase the difficulties connected with the penetration of the teeth." Here is what Dr. J. Lewis Smith says on the subject, in his work on the diseases of infancy and childhood: "The gum-lancet is now much less frequently employed than formerly. It is used more by the ignorant practitioner who is deficient in the ability to diagnose obscure diseases, than by one of intelligence, who can discern more clearly the true pathological state. Its use is more frequent in some countries, as in England, under the teaching of great names, than in others, as France, where the highest authorities, as Rilliet and Barthez, discountenance it. . . . I know no accidents of dentition which require prompt scarification, except suppurative inflammation of the gums, convulsions,

and paralysis. In other cases the operation may be safely postponed till other measures have been employed." In Drs. Meigs and Pepper's treatise on the diseases of children it is said: "Lancing of the gums is undoubtedly a most important point in this [laryngismus stridulus] and other diseases of childhood connected with dentition. We have long been convinced, however, from personal observation, that a resort to this operation merely because the child is passing through the period of dentition is at least useless. We have never found it to do any good unless the teeth are near enough to the surface to produce manifest swelling, attended with heat and soreness of the gums. So long as the gum is hard, insensible, not turgid, and of its natural color, and the mouth not hot, cutting has done no good." That wise old master of the healing art, John Hunter, after speaking of symptoms arising from dentition says, "So far as my experience has taught me, to cut the gum down to the teeth appears to be the only method of cure."

Truly the authors quoted differ sufficiently as to the value of the lancet in dentition. It is worth while to dwell a little on what they say.

Dr. Henoeh speaks very rashly, to say the least, in declaring that "it is generally held that every attempt to facilitate the eruption of the teeth is absolutely useless." The idea was not formed from an extensive acquaintance with the literature of the subject. Again, the statement of the Doctor as to his experience with the use of the lancet may well lead one to infer that he has had hardly any experience with it. He is like those who, although having no knowledge of the use of the lancet in general medicine, yet unhesitatingly venture to condemn it. What he has to say about "the cicatrix" may rightly produce the impression that he has not made himself master of the subject. If the lancing is properly done, there need be no cicatrix; and if there be one it will not serve to retard the "penetration" of the tooth. As Hunter long ago said, at the point of cicatrix the gum offers the least resistance to the appearance of the tooth.

Dr. Smith is doubtless right in holding that ignorant practitioners are very apt to use the lancet when not required, and in his intimation, that the use of it is largely a matter of fashion. But I am also quite sure that too many practitioners who are usually regarded as intelligent do not use it as often as they should. His statement that he "knows no accidents of dentition which require prompt scarification, except suppurative inflammation of the gums, convulsions

and paralysis," is a trifle extraordinary. What of cases of, say, laryngismus stridulus and of cholera infantum, in which dentition bears largely a causative relation? Except in the diseases he mentions, the Doctor would postpone the operation "till other measures have been employed." It scarcely follows from this that he is acquainted with the cardinal principle of sound medical practice. In treating of the same subject, Hunter correctly remarks, "It would be better at once to remove the cause, than to be attempting from time to time to remove or palliate the effect." Wasting time trying to palliate effects, while the cause is allowed to act, lets many a little innocent go unnecessarily and speedily into the grave.

Drs. Meigs and Pepper "have long been convinced, from personal observation, that a resort to the operation merely because the child is passing through the period of dentition is at least useless." It is rather strange that they were ever otherwise than "convinced." No sensible physician cuts a child's gums indiscriminately. Resorting to the lancet when there is no evident need for it, no matter how the child is affected, is, as Dr. West fitly says, "barbarous empiricism." The idea that it is the approach of the teeth "near to the surface" which produces the troubles which are met with in dentition is not of necessity a truth. At least the main source of trouble in the appearance of a tooth is not at the surface; it is at the base. The backward pressure on the sensitive nerves and other parts gives rise largely to the pain and irritation about the gum. This backward pressure may set up trouble a considerable time before the tooth nears the surface, the tension then being almost or quite as great as later. In fact it often, or perhaps I should say generally, happens that there is a spell of trouble some time before the tooth is about to make its appearance. In some it is very marked and it may be repeated. The capsule becomes distended and the surrounding parts hyperæmic and painful, and there is a free flow of saliva. In any case where there is evidently decided irritation about the gum the lancet should be used. It should be used even if for no other reason than to relieve the child of local pain, of toothache, an affliction which, as many know, and Burns told in expressive poetic phrase, is something awful enough in itself, a pain which at its worst Bacon had reason in believing to be "one of the sharpest of pains." There need be no hesitancy in using the lancet repeatedly if the gum is at any point tense and angry looking. Says Hunter, "I have performed

the operation above ten times upon the same tooth, where the disease had recurred so often, and every time with the absolute removal of the symptoms."

That the lancet will afford relief in the presence of very marked symptoms every one surely is aware who knows how to use it. It is an instrument by which much may be done to lessen suffering, cure disease and save life. Here is a delicate child, somewhat over a year old, languid, pale, the victim of one or two convulsions, with contracted brows, a temperature of from 101° to 102°, a tendency to diarrhoea, and a slight bronchitic cough. I lance his cutting tooth, and within a few hours he is almost entirely well. I have done the thing so often in his case that I know precisely what the result will be. This lymphatic child of fifteen months has a developing croup; the hurried breathing, the noise in the throat and all the other symptoms are becoming decided. I lance his appearing eye teeth and he begins immediately to get well. There is a strong looking boy, nearly two years old, with a temperature of 103°, and a marked cold on his chest. I prescribe appropriate remedies but at the end of two days he is no better. I lance a pair of coming molars, and next day there is no fever hardly, and the cough speedily vanishes. That poorly cared for child, who has about completed her first year, is evidently, from the high fever (103.5°), nausea and tendency to diarrhoea, drifting into the fatal grasp of cholera infantum, the midsummer heat favoring the development of that serious infantile disease. I look at her mouth and find that the gums over both the eye- and the stomach-teeth are tense and angry looking. I lance these points, and very simple measures restore the patient, within forty-eight hours, to her usual state of health. But I need not give an extended recital of cases. I am of the opinion that early, and, if need be, repeated lancing would save many who should otherwise perish from convulsions, bronchitis, cholera infantum and other diseases. Especially in apert children, in the warmer part of the year, should there be no delay. Statistics of the census year ending June 30th, 1870, show that there are more deaths attributable to dentition in the third quarter of the year than in the two preceding ones together, and many more than in the first and fourth together. The Philadelphia bills of mortality present a very similar showing.

In order that lancing the gums may do as much good as possible it must be done well, but, of course, not butcherly. A plain incision with

a very sharp lancet is not enough; it will generally do only a little good. This is what is not uncommonly done. Let there be several more or less irregular incisions made, with a somewhat dull lancet, and the hoped for result will very certainly follow. In bad cases the gum should be very thoroughly scarified, so thoroughly that there will be little or no likelihood of the parts uniting over the tooth. And it is proper to extend the incisions well to the sides of the coming tooth. This may be called for after the tooth has partly appeared. Whatever bleeding occurs will be beneficial; it will serve to relieve the hyperæmia and pain. In fact, in not a few cases it is the bleeding that is principally called for; local depletion affords immediate relief. It will not be harmfully profuse, likely, in any case. Says Hunter, "I never saw a case where the bleeding proved either inconvenient or dangerous."

What harm may result from lancing the gums, under any but very extraordinary circumstances, it would be hard to state. I do not feel sure that it can do any, and in this belief I am fortified by the opinions of perhaps all dentists and others who have carefully studied the matter. It may cause temporary pain. Still, this is not very marked. Many a child will open its mouth and have several teeth thoroughly lanced without giving a whimper. As for the tenderness of the gum, which there may be for a day or two, from thorough lancing, it is comparatively a small matter. The idea that lancing will retard the development of the tooth has, I believe, no just foundation. It would appear to be based on the erroneous notion that when lancing is practiced the tooth should immediately appear. It is probable that in no case is there any more than an apparent delay. As already stated, the irritation about the gum which calls for the use of the lancet may arise weeks before the tooth approaches the surface. A tooth does not receive its nourishment from the structures above or about its crown. The cicatrix and hemorrhage I have already spoken of at sufficient length. In all proper cases the lancet may, then, be used, with confidence that it is a markedly non-injurious, as well as an almost infallible means of relief.

—In Berlin, has been formed a society similar to the English Ambulance Association. It was done at the suggestion of Prof. Esmarch, and the Empress has accepted the "Protectorat." The intention is to have, in cases of accident, all necessary professional and other needful service rapidly on hand.

ANEURISM OF AXILLARY ARTERY. FOLLOWING LUXATION OF HUMERUS.

REPORTED BY V. KERSEY, M.D.,
Of Pittsburgh, Pa.

Notes of the following interesting case were furnished by Dr. Jos. Dickson, of Pittsburgh, Pa. :—

Levi P., aged 24 years, farmer, of previously good health, sustained a sub-coracoid luxation of the right humerus, on October 27th, 1878. He was in the act of stepping over the "tumbling shaft" of a threshing machine, when he tripped and fell, the revolving shaft catching his clothing and carrying him around a number of times. Dr. K., of Evansburg, Pa., saw the patient within a short time, and discovered a sub-coracoid dislocation of the humerus. He effected reduction without much difficulty, by the following manipulation :—

The arm being raised perpendicularly to the body by an assistant, the doctor placed his left hand, thickly enveloped in the folds of a towel, in the axilla, and at the same time made forcible counter pressure with the right hand over the acromion.

Since the time of the injury patient states that he has felt "something hard under the arm;" six weeks ago he discovered a lump in the axillary space, and three weeks ago he noticed it pulsating, or "beating, like his heart." On January 4th, 1879, he consulted Dr. Dickson, who stated to him that he was suffering from an aneurism of the axillary artery, and advised him to begin treatment at once. To this he consented, and it was decided to try the effect of digital compression. He was previously prepared, by light diet and free purgation, and on January 6th, at 1.20 P.M., he was placed in bed. At this date the tumor was the size of a small orange, located in the centre of the axillary space, painless, pulsating, and possessing a marked bruit.

He states that in the first week of its existence its growth was quite rapid; later, it grew more slowly. His sufferings, which have not been excessive, consisted of wandering pain shooting down the arm and across the chest.

The axillary temperature of the two sides varied one degree, that of the right being higher.

Radial pulse of right side was weaker than the left. He was placed in a recumbent position, and the supra-clavicular region of right side dusted with subcarbonate of bismuth. One fourth grain of sulphate of morphia was administered by the mouth.

Digital compression, made by the thumb of the assistants, of which there were several, was ef-

factual in controlling pulsation in the tumor. The hand of the assistant grasped the shoulder of the patient from behind, and the thumb pressed upon the subclavian artery, at the point where it crosses the first rib. Pressure, by means of the assistants present, was thus maintained steadily for eight hours. Occasional doses of morphia were administered, when he complained of pain. At the end of this time no pulsation could be detected in the tumor, and pressure was removed. He was advised to remain in bed for one week, and to carefully avoid exercise for several weeks. After a few directions concerning his diet and drink, he was dismissed as cured. No more was seen or heard of him until January 9th, 1879, when he presented himself with the tumor again pulsating.

The axillary temperature and the pulse were identical upon the two sides. The tumor was smaller, firmer and denser than when first seen, but is pulsating quite perceptibly and possesses a marked bruit.

He was again placed upon spare diet, and subjected to free purgation, and on January 17th, with previous preliminaries, systematic digital compression of the subclavian was a second time commenced.

The pressure was so applied as to check all pulsation in tumor, and in the arteries below. When pressure was begun, patient complained of sense of fullness about the head and face, and numbness of arm and hand. Morphia sulphate was administered during the first twenty-four hours, as needed to quiet pain. Tinct. veratrum viride (Norwood's), was administered in two minim doses, hourly, to reduce the pulse-rate; its use was discontinued when pulse-rate fell to 100 beats per minute.

His nourishment consisted of half a pint of warm milk and bread every six hours. He was allowed very small amounts of water. At the end of twenty-four hours, when all pressure was removed for a few moments, the radial artery could be felt faintly pulsating, although no pulsation could be discovered in the tumor.

January 20th, auscultation revealed a loud and distinct bruit in that portion of the tumor opposite the central division of the pectoralis major muscle. This bruit was only noticeable after pressure had been removed for several minutes.

On January 24th, one week after commencement of second period of treatment, all pressure was removed; on this day the tumor was quite small, and, except a great numbness and lack of power in the arm, he was practically well. In one week he had so far regained the use of his

arm as to be able to feed and dress himself without assistance; he was discharged from treatment.

On January 2d, 1882, patient presented himself at Dr. Dickson's office, and was carefully examined by Dr. McCann and Dr. Dickson. Nothing of the tumor could be found, and patient stated that the limb was "as good as ever."

COLD TREATMENT OF SCARLATINA.

BY JAMES Y. SHEARER, M.D.,

Of Sinking Spring, Pa.

Read before the Berks County Medical Society.

Mr. President and Gentlemen of the Medical Society of the County of Berks:—

In obedience to the wishes of the Society I appear before you, to address you on a subject of great importance, viz., cold water or ice in the treatment of scarlatina. When men of eminent skill in the profession differ so widely in their views as on this subject, there must be something of so great an importance attached to it that it cannot be overrated. Such a dreadful scourge as scarlet fever, which carries away its victims by the thousands and fills the land with mourning, ought to be studied and sifted with the closest attention. When we consider the fatal nature of this disease, we should not hesitate to resort to the best and safest remedy, no matter what our choice treatment may be. I consider it the duty of the practitioner to gather all the information relating to the treatment of scarlatina, coming from a reliable and trustworthy source, that he may be able to acquire.

I have no hesitation in saying that the ice-treatment in scarlatina is preëminently proper. My own experience during the last fourteen years fully convinces me of the truth of this assertion. It is true this treatment has met with some opposition in the ranks of the profession. Some doctors seem to be unwilling to accord to it the merits which I think it deserves. There are different reasons for this unwillingness. First, their prejudice prevents them from using it, and in the next place (when they do use it) they lack discretion in its application.

In the May number of the *American Journal of the Medical Sciences* for 1833, there appears a communication from Dr. Samuel Jackson, of Northumberland, Pa., in favor of the cold or ice treatment in scarlatina. I believe Dr. Jackson first advocated *in print* this treatment in this country. Great credit is due to him for venturing to advocate in print a practice or treatment which was condemned generally, not only by the

laity but by the profession as well. Dr. Chapman, of the University of Pennsylvania, in 1826-27, vehemently opposed this treatment in his lectures to the students. But Dr. Hiram Corson, of Conshohocken, Pa., although having listened to those very lectures of Dr. Chapman, and having imbibed the false doctrines imparted to him, about a year thereafter, in the face of a perfect storm of opposition, used cold water in scarlatina with the most happy results. Before giving my mode of treatment, let us glance for a moment at the disease.

It is well settled that scarlatina is divided into *scarlatina simplex*, *scarlatina anginosa*, and *scarlatina maligna*.

In scarlatina simplex the fever is seldom active; the cutaneous efflorescence is complete, but there is scarcely any inflammation of the throat.

In scarlatina anginosa the febrile excitement is greater, the eruption is complete, and there is always inflammation of the throat.

In scarlatina maligna the fever is of a depressing character, with considerable depression of the vital forces, and besides the other symptoms of scarlatina in general, a sloughing inflammation of the throat.

In scarlatina anginosa there are always the usual symptoms of pyrexia, preceded by a peculiar lassitude. The affection of the fauces is always prominent; stiffness of the jaws, soreness of the throat, and pain in swallowing, are often experienced in the commencement. The inflammation of the fauces advances with the progress of the disease, and patches of a concrete exudation are generally seen on the surface of the tonsils. In adults a strong chill is the first symptom; in children, a violent convulsion or a succession of them, or a severe attack of vomiting, with prostration. The eruption makes its appearance at the end of the first, or the beginning of the second day. As vomiting greatly prostrates the patient, a great deal of it shows the severity of the disease. The heat under the tongue is very great. In fact, the temperature in this disease exceeds that in every other fever. It is affirmed by some writers that in some instances it arose to 112 degrees, Fahr.

I have used cold water in scarlatina for upwards of twenty years. In May, 1862, I was called to see a little boy about ten years old, who had a very severe attack of scarlet fever. I found him in convulsions and unconscious, from the very high fever. After a careful examination of the patient, I made up my mind that the boy would die, and so apprised the family. I concluded that the only way to give relief to the

patient was by reducing the temperature, and to do it promptly and effectually, I stripped the boy and sponged the whole body with cold water. In less than thirty minutes the convulsions ceased, the temperature was very much reduced, the patient had rest, and both the family and myself had hopes of the boy's ultimate recovery. The fever, however, commenced increasing shortly after the cessation of the sponging, as expected, and in about two hours convulsions again set in. I was promptly sent for again, and repeated the sponging with the same result. This had to be done at least six times before breaking the fever effectually, with the period of time increasing between each interval.

Every time when the convulsions ceased the boy told me how good the cold water felt, which I considered strong evidence of the counteraction which the cold water produced upon the high fever. Before the first application was made the eruption had a bluish color, but after the application of cold water it assumed a red, normal hue. The recovery of the patient was speedy, and this without anything else except a little sweet spirits of nitre. To make the efficacy of this treatment more convincing to me, I was called to see a child of about the same age, about two weeks thereafter, that had scarlet fever, and was suffering in the same manner. This was exactly a parallel case—the same in all its bearings. The parents positively refused to let me touch the child with anything cold. I told them the great danger their child was in, and my unflinching confidence in the cold water treatment; but all without success. They persisted in having their own way. I resorted to all means recommended by the authors, but all my efforts were futile, and the child died. I have never been shaken in my steadfast opinion that if I had been permitted to treat that child according to my wishes and inclinations, with cold water, I could have saved its life.

During an epidemic in 1868 I treated forty cases with ice and cold water, and was successful in all except one case, and that was a very weak and puny child, only six months old, and otherwise deformed.

Two years ago I attended a family who had only two children. Both were taken sick at the same time, with scarlatina. I at once noticed the malignancy of the disease, and knew that I was wrestling with a foe that required prompt and heroic action to subdue. The throats were swollen, having gangrenous spots, accompanied by great physical prostration; in fact, the patients were fast approaching the threshold of

eternity. Both parents and grandparents were opposed to the ice treatment, arguing that it was an application for the *dead* and not for the *living*. I, however, explained to them the theory of the ice treatment, and they, being intelligent people, yielded to my importunities. I at once applied ice externally to the throats, gave them ice to eat and cold water to drink, and in less than ten hours relief was apparent, and in twenty-four hours they were beyond serious danger. Although it took two weeks to restore them fully to health, I have no doubt in my mind that without the use of ice neither one would have recovered.

The mother took it also, and in a violent form. In the case of her children she strenuously opposed the use of ice; but in her own case, having seen the good results of it in the cure of her children, she manifested not the slightest opposition to its use. After applying it to her throat, and using it with care, she realized such good results that she cannot speak too highly of it. These are only some of the many cases I might mention, and which I treated with similar success.

During the last year, I have treated some forty cases of scarlatina, and only four of my patients died; and in these four cases the parents would positively not allow me to use ice.

My mode of applying ice to the throat is not on the bare skin, but have a muslin between the skin and the ice; and great care should be taken to get it to the inflamed glands of the neck. Place it between two bandages of muslin, and then apply it to the glands, tying the bandages over the crown of the head.

In all my cases in which I used ice, there were no sequelae.

During the last twenty years of my practice I have, in scarlatina, uniformly followed the treatment just described, except in some few cases when the parents' opposition to it prevented me, and my success has been such as not only gave me great satisfaction, but it has been so invariable, that I feel it my duty not only to recommend it, but to appeal to the profession to give it a fair and impartial trial.

GHEEL.

An abstract of a paper read before the Medical Society of the State of Pennsylvania,

BY S. S. SCHULTZ, M.D.,

Of Danville, Pa.

Gheel had its origin as a place for the abode and treatment of the insane, some twelve or thirteen centuries ago. The belief then first became

current that presence at the shrine of St. Dymphna, who was murdered in a fit of maniacal fury by her father, an Irish king, from whose unnatural passion she had sought shelter in Belgium, cured convulsive diseases and insanity. This superstition brought the insane from far to be cured at this place, and they were, for the sake of charity and money, received into the homes of the peasants, and those who now form the class of inhabitants called guardian nurses may be literally taken to be their descendants.

The commune and borough of Gheel are divided into four sections, each of which, with many exceptions, receives only a particular class of patients, and is in charge of a physician who visits them once a week, and of a supervisor who makes his visits once a day. The 1200 or 1500 patients are scattered through the commune, which is some seven miles square. From one to four are received into one house.

Some of the houses are capacious and comfortable; others—and about twelve and a half per cent. of the patients are accommodated in such—are very humble and destitute of comfort and the necessary appliances for taking care of the sick. Floors are of clay or brick, roofs thatched, and sleeping places are reached by ladder, and are often immediately under the roof and without windows. One place on the first floor has often to serve for sitting and dining rooms, kitchen and wash-house for the entire family, sane and insane. Such places are on the outskirts of the colony, and are not usually reached by ordinary visitors. During the autumn chills and fever are, in such quarters, frequent, both among nurses and patients.

The mass of patients, no doubt, have great freedom, but others are restrained in a way that would be considered very objectionable in an ordinary hospital, and would not be necessary.

Not all classes of the insane are received, but only such as are best adapted to the family treatment, and Gheel could never take the place of an ordinary State hospital, on this account.

In order to accommodate such as become temporarily excited or dangerous, and those who get there in violation of the rules,* an infirmary has, in recent years, been built, not differing essentially from an ordinary hospital for the insane. This surrenders the idea that family treatment is suitable for the insane as a class.

Patients being so widely scattered through the township makes efficient supervision impossible, and such supervision is absolutely necessary for

* Excluding the dangerous and otherwise objectionable.

the proper care of any dependent class, and especially the insane.

A second Gheel, even if it were desirable, could probably never again be established. It had its origin in a peculiar combination of circumstances, without which it could not have originated, and which are not likely to occur again.

A CASE OF ACUTE HYDROCEPHALUS.

BY CHARLES F. SPANGLER, M.D.,

Of York, Pa.

(Read at the Session of the York County Medical Society, July 6th, 1882.)

Modern scientific investigation concerning affections of the cerebral organs have demonstrated that acute hydrocephalus, of the idiopathic character, is of rare occurrence, and that nearly all of the so-called cases have now been ascertained to be instances of tubercular meningitis.

Meningitis with an abundant serous effusion has been called acute hydrocephalus, and older writers, including Beddoes, Condie, Cullen, Thomas, Watson and others, invariably employed the term synonymously with inflammation; but the term should be limited strictly to a non-inflammatory, non-tubercular or dropsical affection.

The arachnoid being analogous to other serous membranes of the body, is subject to like pathological conditions, producing abnormal aqueous secretions proportionately as the intracranial vessels present anatomical and functional peculiarities. And it is not impossible that a disturbing agent exists, so affecting the cerebral blood current as to produce an abnormal exudation of serum. This occurs in chronic hydrocephalus, and it is when the morbid action manifests its influence in a greater degree of intensity that we have the acute form of the disease.

The case which came under my observation in May last was that of a white male child, aged 20 months, of fine, robust appearance, and of unquestionable antecedents. Had always enjoyed good health prior to the above-mentioned period, when the following features were presented, viz.: The child appeared dull, drowsy, with indisposition to exertion, indifference to surrounding objects, and impaired muscular coördination, the temperature and pulse indicating a fever of moderate intensity; tongue thinly coated with a whitish fur; anorexia, nausea and constipation, with a short, dry cough, continuing thus for about forty-eight hours, when there was a decided im-

provement, the patient appearing apparently well. Physical exploration of the chest revealed a normal lung and heart, with the exception of a mild form of bronchitis. However, during the night of the third day symptoms of greater gravity became manifest. There was evidence of cephalalgia, great restlessness, flushed countenance, injected conjunctiva, contracted pupil, and the retina morbidly sensitive to light, the skin hot and dry, temperature elevated, pulse full and rapid, respiration hurried, active delirium, convulsions and left-sided hemiplegia. Synchronously with the onset of coma and hemiplegia was a conspicuous decline in the temperature, in the frequency of the respiratory movement and cardiac pulsations: the palpebræ remained unclosed, the pupils dilated, the eye no longer is over-sensitive to light, and almost complete anæsthesia of the surface is present.

The symptoms of active hyperæmia gradually gave way to those evincing pressure upon the hemispheres. The coma becomes more profound, the hemiplegia more decided, the respiratory movement more enfeebled and interrupted, until the sixth day of the disease, when death occurred. During the later stage of the malady, when the child was raised to the sitting posture, the head falling forward upon the chest or backward upon the pillow, a distinct gurgle or splashing sound was elicited by the fluid propelled against the walls of the cranium, audible at a considerable distance from the bedside. This phenomenon was reproduced even after death.

The head was well developed and in proportion to the general contour of the body. The bones of normal density, strongly sutured, and the fontanelles nearly obliterated. Unfortunately, an autopsy being unattainable, the anatomical characteristics could not be ascertained, but the nature of the lesion is reasonably indicated by the suddenness of the attack, occurring in a previously healthy subject of good family history, in which, owing to defective intracranial blood supply, from whatever cause, there ensues congestive symptoms of a passive character, continuing for a time, with a period of remission, followed by an active congestion, the symptoms of which are rapidly superseded by those of pressure from the extravasated serum.

The accumulation of the fluid being almost simultaneous with the occurrence of hyperæmia and the overwhelming effects of the abundant effusion in arresting the elements of vitality, justly ascribe the case as one of acute hydrocephalus, unconnected with tubercle or inflammation.

The treatment during the earlier stage was purgation followed by potassium bromid. in combination with the tincture of the root of aconite, continued throughout the hyperæmic condition, in conjunction with cold to the head and warmth to the extremities. When evidence of effusion was perceptible the compound solution of iodine was administered in suitable doses, with inunctions of mercury.

DIPHTHERIA; ITS ETIOLOGY AND TREATMENT.

BY H. L. GETZ, M.D.,
Of Marshalltown, Iowa.

In your issue of February 4th, 1882, appeared an article, under "Special Reports," on Diphtheria, which I wish to commend, and upon this subject express my views.

Concerning the seat of the disease there can be little doubt; nay, there can be no doubt in the minds of those who have had experience with the disease, that if it is not a constitutional disease at the outset, it very soon becomes such. And if the disease is communicable through drinking milk, etc., while micrococci may attach to the fauces and tonsils, and thence originate the disease, it is quite as likely that some may be and are carried into the stomach, and so on into the circulation. And in such an event it would be possible for the disease to be sometimes first constitutional and at others first local. In either event, if the disease germs are lodged anywhere in the system, local or otherwise, the constitutional and the local symptoms will soon be manifest; so that the treatment resolves itself into local and constitutional, from the outset. At any rate, this is the only safe mode to adopt. In some instances, if the disease were purely local (which I believe it may sometimes be), and we had some means by which we might to a certainty settle this point, we might then adopt a purely local treatment, perhaps with success, if the cases were recognized in their incipency; but having no such means we must be alike prompt in local and constitutional treatment, if we would save our patient, for delay in either is almost certain death. I wish to be understood as speaking of diphtheria proper (not homœopathic diphtheria, *i. e.*, simple ulcerated tonsillitis, which, in nearly, if not all, instances will get well in a few days without treatment of any kind). A few points concerning the treatment:—

My experience and observation extend over a period of eight years. I have seen the disease in its various stages and types. If you begin

treatment within twelve hours from the onset of the disease (membrane formation) the patient with proper treatment will recover.

If you begin treatment twelve to eighteen hours from the onset of the disease you may expect to lose a patient occasionally.

If you begin treatment from eighteen to twenty hours after the onset of the disease you may expect many fatal cases.

The disease is one which usually runs a rapid course; the patient dying in from four to six days, mostly. I have seen cases perish in forty-eight hours where no treatment had been given.

This being the case, it is evident that to accomplish anything satisfactory the treatment must be prompt and thorough; the patient must have the same attention night and day, until you have the disease thoroughly under control.

I rely upon the following plan of treatment (having tried many other modes and abandoned them because not reliable): pure air, of proper temperature; quinine and iron, in form of elixir, in tablespoonful doses every two hours for an adult; proper nourishment—extract of beef, milk, eggs, good port or sherry wine.

Locally, internally, tincture of iron with glycerine, in the proportion of two parts of the former to one of the latter, and this mixture saturated with chlorate of potass.; this should be thoroughly and carefully applied, every six hours, to the fauces, tonsils, etc., by the physician, and never entrusted to inexperienced persons. A gargle consisting of one part of the above mixture and three parts of water should be used every two or three hours. Small pieces of ice may also be allowed to dissolve in the mouth to good advantage when not annoying to the patient.

Locally, externally, nothing, except where there is swelling of the lymphatics; then the application of lin. ammon.

If the above plan of treatment is faithfully carried out I know that the mortality of this much dreaded disease will be very much lessened. A single example of the importance of early and thorough treatment.

No one of experience will probably deny, all things being equal, that children will perish from the disease more frequently than adults.

A family of ten persons, father, mother, four children between the ages of six and twelve years, and four (three sons and one daughter), between the ages of seventeen and twenty-five, all but the father contracted the disease. I was called in consultation when all had contracted the disease. The mother, adult daughter and two adult sons had already died, and one other son

was in a dying condition (all happening within a period of two weeks); the children, four in number, under twelve, though having the same type of disease to contend with, all recovered. The treatment adopted was the same for children and adults, and in the main such as here suggested. Why did the adults die and the children recover? Because the adults refused to have any treatment until the disease had far advanced, and the children were forced to treatment early.

HOSPITAL REPORTS.

COLLEGE OF PHYSICIANS AND SURGEONS, NEW YORK.

CLINIC BY GEORGE H. FOX, M.D.,

Professor of Dermatology.

Pediculi.

GENTLEMEN:—To-day we will continue the subject of animal parasites which cause disturbance of the skin in man. There are three kinds of the pediculus: the pediculus capitis, or head-louse, the pediculus pubis, or crab-louse, and the pediculus vestimenti, clothes or body-louse. These pediculi produce three forms of phthiriasis: phthiriasis capitis, phthiriasis pubis, and phthiriasis corporis.

These pediculi resemble each other in their anatomical structure and in their general appearance, to a very great extent, and it is singular there should be such a contrast between the affections which the three species cause. Why it is that one louse should inhabit only the scalp or hairy portion of the head, why another should infest all the hairy portions of the body except the scalp, and why still another should harbor in the clothing entirely, being found only in the seams and folds of the garments, and never among the hairs of any portion of the body, is a question very difficult indeed, and impossible, I may say, to answer.

Now, the treatment of any of these forms of phthiriasis is merely local. The old idea of the disease being a specific dyscrasia was long ago exploded, but still there are very many among the lower classes who believe now that the pediculi are bred by the disease; in other words, that they are the effect rather than the cause of the disease. You will find this idea firmly rooted in the minds of many of the less intelligent patients, so that it will often be almost impossible to get them to carry out the local measures prescribed until you talk with them for some time, persuading them that their blood is not disordered, calling for internal treatment, but that the trouble is caused altogether by the lice upon the skin or in the clothing, and that local remedies, if efficiently applied, will be sufficient to effect a cure.

It is convenient to discuss these three forms of phthiriasis separately. Take first the phthiriasis capitis, which is very common. It is an affection which occurs very largely among the children of the poor, but from them is very frequently transferred, either directly or indirectly,

to the children of the rich. Adults, of course, are not exempt from it, and women, on account of their long hair, are more likely to get it than men.

When the insects get into the hair they proceed to deposit their ova upon the hair of various portions of the scalp, usually in the temporal region, and usually near the scalp itself, from which they draw their sustenance. These nits are little pyriform bodies adherent to the hair, the small extremity always pointing toward the scalp. Three, four or a dozen or more may be deposited upon a single hair, and always near the scalp; therefore, when you look at any case of phthiriasis capitis and find that these nits are removed some distance from the scalp, you may know at once that the disease has existed for some time, the gradual growth of the hair accounting for the distance of the nits from the scalp.

These nits hatch out in a very few days, and give rise to a certain amount of itching, which generally leads to a diagnosis of the trouble, either by the patient or by the friends, the mother, or the nurse. If the patient be a child, they will notice that the child is scratching the head more than usual, and on examination they will find one or more of these nits upon the hair, usually, as said, upon the hair of the temporal region. Sometimes it is rather difficult to say, unless there be rather a strong light, whether a little excrescence, one or more, upon a hair are really ova, or whether they are little shreds of epithelium, which is sometimes adherent. If the hair, however, is removed and examined with a strong light, this peculiar pyriform shape of the nit will be at once apparent, and the diagnosis can be readily made. When the disease has existed for a long time, in children who have been neglected, or in adults, as I have often seen it, you will find that the hair appears as though it had been covered with some rough or coarse white powder, each individual film being studded with these ova.

As regards the treatment, I have said that the treatment of all of the forms of phthiriasis should consist simply in the application of local remedies. At the same time, I must say that there are some writers who believe that there is a certain predisposition, or a certain condition of the skin which predisposes, to attacks of the pediculi, and I must admit that there are very many children who seem to catch lice upon the slightest provocation. In a family of a number of children, when exposed, one or two will get lice and others will escape; but this I think must be due to the readiness on the part of some of the children to associate with every description of playmates, whereas the others hold themselves more aloof. Certain persons troubled with this affection care nothing about cleanliness, and only resort to it when their itching becomes so intense that life is a burden to them. Now, if any person in perfect health should subject themselves to the same causes as these persons do, we would undoubtedly find that they would be just as lousy. In other words, the condition of the patient's health has nothing whatever to do with the existence and the persistence of these pediculi. I must say, however, that many writers have recorded cases of phthiriasis where the disease

could not be cured by local treatment until the patient had been given cod-liver oil or some internal remedy, which has, they say, seemed to change the condition of the system, and along with it the condition of the skin, so that the insect could be destroyed. Notably among these, is Hebra. This, however, I think is a mistake. McCall Anderson, a most excellent writer on dermatology, I know, speaks of some cases of phthiriasis corporis, or body lice, occurring in broken down subjects, where a cure could be greatly accelerated by the administration of cod-liver oil, etc. So far as my experience goes, the ordinary local treatment will cure phthiriasis long before cod-liver oil, etc., would begin to have any effect whatever.

Now we will suppose that we have one or two cases of phthiriasis capitis to treat. We will find that the treatment depends greatly upon the social condition of the patient, and largely upon the chronicity of the disease and the number of the pediculi and ova present. In private practice the disease is generally discovered soon after the pediculi have found lodgment upon the scalp, and when there is a very slight amount of irritation. It will be difficult to tell, in some cases, whether the child is really suffering from the pediculi, for you will often be unable to find the insect until you have examined one or two hairs in a very strong light. Having found one or two nits, however, the diagnosis is made.

Now, in such a case, what is the best plan to pursue? I have had occasion to treat the disease in my own family. I do not know but what I brought the lice home myself, for I have brought pediculi home upon my clothing, from the dispensary, repeatedly, and the treatment I have adopted in private practice has been to rub in a very little of the white precipitate ointment. In the milder cases that rarely fails to effect a cure in a few days. A number of remedies have been recommended, but as I have found the white precipitate ointment, full strength, rubbed, not in the scalp, but throughout the hair, will effect a cure in a few days, it is not necessary to consume time in naming the various remedies which may have been proposed. But there may be some objection to using this ointment on the hair, especially because of matting the hair together. If you want a more elegant preparation, use a one per cent. solution of corrosive sublimate, either in alcohol, water, or Cologne water. Another prescription may be used, as follows:—

R.	Hydrarg. chlor. corros.,	1	
	Thymol,	4	
	Alcohol,	100	
	Ol. amygdal. ama.,	q. s.	M.

The mercurial solution alone is sufficient to kill the pediculi, and in the milder cases there is no danger from the absorption of the drug. If there has been very much laceration of the scalp, from the scratching, or if there are any spots of eczema present, of course it would be unsafe to use a strong solution of corrosive sublimate, or, in fact, to use corrosive sublimate at all. The alcohol is also a parasiticide, and gives a peculiar odor to this lotion which is not pleasant to the pediculi, and the thymol or the Cologne water, if you wish to use it, tends to loosen the ova from the

hairs. Very often a solution is used which kills the pediculi but does not kill the ova, in which case, in a few days, a fresh colony of the insects is present. The oil of bitter almonds added to the mixture counteracts the peculiar odor of the alcohol and gives a more pleasant fragrance. Where you wish the effect of corrosive sublimate upon the skin you will find this a very pleasant lotion to use. As I say, it can be used with impunity provided it is applied to the unbroken epidermis. If you use it upon the face or scalp of a child suffering from moist eczema, I would not undertake to be responsible for the consequences. I have written this prescription in the decimal system. I do not care whether you use grams or drachms, or what not, but the decimal system is as much superior to the system in vogue as the decimal system of money is superior to the sovereigns, crowns, etc., of the English. I am in favor of changing the system, not for the sake of making a change, but simply because the decimal is much more convenient. A good plan would, I think, be to give up using grains, scruples, ounces, etc., and use simply the drachm as a unit, instead of the gram, and make your prescription a decimal one. No matter, in fact, what unit you use, as a hundred drachms, fifty drachms, etc., by making every prescription amount to one or more hundred parts, or some decimal portion of one hundred, you can see at a glance the percentage of each ingredient.

THE PEDICULUS PUBIS looks like a crab, and consequently we have the common name, crab-lice. The same treatment which will remove the pediculi from the hair will also remove the pediculi pubis. Ordinarily we find the phthiriasis pubis affecting simply the pubic region; but you must bear in mind, strange as it may seem, that you will sometimes find this pediculus in the axilla, sometimes in the eyebrow and upon the eyelashes; I believe some cases have been reported in which it was found on the scalp, but if it be so it is extremely rare. I have never seen such a case myself.

The ointment which is ordinarily used in the treatment is the blue ointment, or ordinary mercurial ointment of the Pharmacopœia. There is no doubt about its being an efficient remedy, but the majority of patients will use so much of it, and rub it in so hard, that about one-third of the cases, at least in dispensary practice, will be found next day with a severe eczema of the scrotum, etc. That is too much of a good thing. The ointment of ammoniated mercury is far more cleanly. Or you can use the lotion of corrosive sublimate which I have just given you.

PHTHIRIASIS CORPORIS, or pediculi which infest the clothing, look very much like the pediculi which infest the scalp, but larger. Although you may find them on the skin after the clothes have been removed, you must bear in mind that these insects do not infest the skin, but live in the seams and folds of the clothing, and merely come upon the skin to pasture, as it were, to insert their little probes and draw the blood from the superficial vessels.

Now, the eruption which the pediculi in the clothing make is a peculiar one, and is due wholly to the scratch mark. If a person were paralyzed, or confined with a strait jacket, you

would not find the peculiar eruption in phthiriasis corporis, nor would you find it, for that matter, in scabies. It has been repeatedly noticed in insane asylums and hospitals, where persons have contracted scabies and could not use their nails in scratching, that the ordinary eruption was not present.

We make the diagnosis of this affection in two ways: First, by finding the lice upon the clothing, which is not difficult where they are numerous; and second, by noting the peculiar location of the eruption, which consists only in scratch marks. There is one peculiarity about these scratch marks of phthiriasis which does not occur in scabies and other affections of the skin, and that is that they are very long and very little. In other words, there is no other affection of the skin in which the pruritus is so intense as in the affection spoken of. In scabies, in urticaria, and other affections of the skin you will often find the skin torn and bleeding, but you will never find the patient taking four or five nails of one hand and drawing them across the skin and leaving bleeding marks, as you find in phthiriasis corporis. In scabies the eruption depends largely upon the character of the clothing; so in phthiriasis we find the scratch mark, in the first place, most abundant across the shoulders, and from this fact alone the diagnosis may often be made. In the second place, we find a ring or girdle of excoriations around the loins, upon the hips and outer surface of the thighs. Why is this? Simply because across the shoulders we have the shirt occurring in folds, and these folds give harbor to the pediculi. Around the waist, where the clothes are tied tight, being brought closely in apposition with the skin, as is often the case with workmen, we find the pediculi; and, consequently, intense itching will occur in these regions, and, of course, the patient will scratch where he itches most. I remember a very peculiar case at the New York Dispensary some years ago, where the patient had stripes of excoriations upon the outer side of the thighs and legs, and also upon the inner side of the thigh not quite so marked. On the anterior and posterior aspect of the thigh he was almost entirely free from the eruption. Now, this peculiarity struck my view at once, and I was at a loss to know what caused it, until one of the students who was present suggested looking at the patient's pants. It was simply because the seams of the pants were almost white with the ova of the pediculus, and, of course, the irritation had occurred just in the line of the seams.

If you take all the clothing of the patient, not only those which he is wearing at present, but those which he has been wearing, and throw them away, and put him into a clean bed in a hospital, the disease itself is cured. It may take several weeks to cure the secondary eczema which may be present, or even perfectly to heal the excoriations of the skin, but the cause of the trouble is removed as soon as you get rid of the infected clothing, and that is the first thing to do, except, as I have said before, to convince the patient that he has lice. Many will deny it. In private practice it often requires a great deal of delicate tact to tell the patient that the trouble is not due to the blood, but to infection of the

clothing by lice. It may be in persons who are very nice about their toilet, the last persons in the world that you would suspect giving harbor to the pediculi; but such cases do occur. I have had them a number of times. It is very easy to get pediculi upon the clothing in public practice; it is almost impossible, however, to contract scabies. I have handled the hands of scabies patients by the half hour or hour, and never had any fear whatever of contracting the disease. At the dispensary, and at clinics, and in the street cars the pediculi are very apt to move from the clothes of one affected to your own.

Now, in those cases where there are only one or two pediculi to be found, or perhaps, none at all, but merely the peculiar marks upon the skin which you recognize as being caused by this affection, the only thing to do is to explain to the patient just what the cause of it is, and advise that the underclothing, and the outer as well as the under, if he wear woollen clothing, be baked in a very hot oven. They can be rolled up in a newspaper and put upon a board and baked in an oven where the temperature is at least 150 or 200 degrees, or more. This will kill the insect and the ova as well. In dispensary practice, where we find not only pediculi present in large number, but this lacerated or excoriated condition of the skin, we not only advise the patient to bake his clothing or buy new, but we have to do something to remove the effects of the skin scratching. For this I have generally advised, for public practice, a tolerably strong lotion of carbolic acid, perhaps thirty grains to the ounce. An infusion of larkspur seed may be used, or ointment. The ointment is largely used in Germany and England, and to a slight extent in this country. Another remedy may be used in connection with phthiriasis capitis, to lessen the itching of the skin and prevent the pediculi from getting access to the body, that is, petroleum.

In severe and neglected cases of pediculus capitis in children, it is a good plan to advise the use of petroleum, a remedy which they usually have in the house, and saves the expense of getting the bichloride solution. I tell the patient usually to anoint the head thoroughly with oil at night, not to rub it in near the gas jet or lamp, through fear the patient may take fire. If there is very much eczema present the oil will cause considerable smarting, and it might be well, in some cases where there is considerable eczema, to treat first before we begin to remove the pediculi, or simply to use the white precipitate ointment in the hair. But if there is not much eczema of the scalp, we can tell the patient to rub the oil thoroughly into the hair and put on an oiled silk cap, or other suitable cap, and sleep in it over night. In the morning the scalp can be washed thoroughly with soap and water, and the disease will be partly cured. It is necessary, however, in some cases, to repeat this night after night, for three or four days. There is, perhaps, no more efficacious remedy than the petroleum thus used. In pediculus corporis, you can tell the patient to do the same thing, keep the skin greased with the oil; the odor, it seems, prevents pediculi from going to the skin. Where they go to may be a mystery, but soon they will be found in much fewer numbers in the clothing.

EDITORIAL DEPARTMENT.

PERISCOPE.

Excision of Pylorus, for Cancer.

In the *British Medical Journal*, Dr. F. A. Southam reports the following instructive case, which, from its great practical value, deserves a full notice:—

Richard S., aged 43, gas-fitter, was admitted to the Manchester Royal Infirmary, under the care of Dr. Ross, on March 13th, 1882, suffering from symptoms of pyloric obstruction, which had first shown themselves about four months previously. The patient, who was much emaciated and was rapidly losing flesh, was, at the time of admission, unable to retain any solid food, as sickness always came on about an hour after a meal, the vomited matter being at times mixed with a little blood. Fluids, however, if taken in small quantities, were retained by the stomach. The bowels were very constipated, only acting about once a week, and the motions were dark and tarry. The patient complained of considerable pain in the region of the stomach, always increased after taking solid food. On examination of the abdomen, as the patient lay on his back, a hard, well defined, somewhat nodular mass, apparently about the size of an orange, could be distinctly felt close to and a little to the right of the umbilicus, corresponding in situation with the pyloric extremity of the stomach. The tumor, which was freely movable, shifted its position with the respiratory movements, and also with the position of the patient, falling to the right or left of the middle line, according as he turned to either side. On making pressure over it considerable pain was felt. No dilatation of the stomach could be detected, and the condition of the other viscera appeared to be perfectly normal. From the history and the symptoms which were present, Dr. Ross had little difficulty in diagnosing the case as one of cancer of the stomach; and as, from the mobility of the mass and the fact that it was perfectly free from any connection with the abdominal walls and adjacent organs, the disease appeared to be limited to the pylorus, the case was considered a suitable one for operative interference.

As he was very rapidly losing ground, growing daily more emaciated, preparations were made for performing the operation on April 5th. In order that the bowels might be thoroughly cleared out, simple enemata were administered the two preceding evenings, and brought away a large quantity of dark-colored feculent matter. No food was given by the mouth for twelve hours previously.

The operation was performed at 10.30 A.M. on April 5th, according to the method adopted by Professors Billroth and Dr. Wolfier (*Clinical Surgery*, by Dr. Billroth; New Sydenham Society, p. 498), with antiseptic precautions. To guard, as far as possible, against the effects of shock, the patient's extremities were carefully wrapped up in blankets, and hot bottles were kept applied to the soles of the feet and sides of

the thighs and legs. As soon as the patient was fully anesthetized, a siphon stomach-pump was passed, and the interior of the stomach was several times thoroughly washed out with tepid water. The necessity of this measure was proved by the fact that a large quantity of dark-colored, grumous matter was brought away, which otherwise would probably have escaped into the peritoneal cavity when the viscus was opened.

The operation itself may be divided into five stages.

1. *Exposure of the Tumor.*—This was effected by a transverse incision, nearly six inches in length, carried across the abdomen about two inches above the umbilicus, and dividing the recti muscles. All bleeding having been arrested, the peritoneum was divided to the same extent, and the growth was then freely exposed to view. (Fig. 1.) It was found, as was expected, limited to the pyloric extremity and adjacent portion of the walls of the stomach, being perfectly free and movable, except at its posterior aspect, where there were a few slight adhesions to some enlarged lymphatic glands which lay close to the head of the pancreas. These having been readily broken down with the finger, the pylorus and diseased mass were drawn forward as far as possible, so as partially to protrude through the abdominal incision.

2. *Isolation of the Pylorus and Tumor from the Large and Small Omenta.*—The tumor having been drawn forward as far as its connections allowed, the great omentum was first separated from the greater curvature of the stomach, by taking it up in three portions, between three double catgut ligatures, and then dividing it between each pair of ligatures with scissors. The small omentum was then separated from the lesser curvature in a similar manner, five double ligatures being used. In this way, the pylorus and diseased mass were completely freed from their connections with both omenta, without any hemorrhage; and being quite isolated, the tumor could now be drawn forward through the external wound, so as to lie altogether outside the abdominal cavity. This having been done, a large, flat sponge was laid beneath the stomach, so as to cover in the greater portion of the wound, and in this way prevent any prolapse of the intestines, and the escape of any blood, or of the contents of the stomach and bowel, after their division, into the interior of the abdomen. By this means, the remainder of the operation was performed altogether outside the peritoneal cavity.

3. *Excision of the Pylorus and Tumor.*—This was effected in the following manner. A thick silk ligature was tied around the duodenum, about an inch and a half from the pylorus, so as to prevent any extravasation of its contents from taking place after its division, and also to guard against its slipping away after its separation from the stomach. The duodenum was then divided with a pair of scissors between the ligature and the pylorus, about half an inch from the tumor and well clear of the disease. The distal por-

tion, with the ligature round it, was then drawn over to the right side, while the stomach itself was divided. This was again effected with scissors, the division being commenced about the centre of the lesser curvature, and carried obliquely across toward the great curvature, in a line slightly convex toward the left side. (Fig. 1.) In this way, the pylorus, along with the tumor, was completely removed. The contents of the stomach, which was almost empty, were soaked up with a sponge; and its interior was carefully washed out with a weak carbolic lotion. Contrary to what one would have expected, the division of the stomach was attended by very little hemorrhage, only two small vessels on its anterior wall requiring torsion—the result, no doubt, of the powerful contraction of its muscular coat. Nor was the division of the bowel accompanied by any bleeding, the pressure of the ligature round it probably preventing any hemorrhage. After the removal of the tumor, a mass of enlarged glands surrounding the head of the pancreas was freely exposed to view. Some

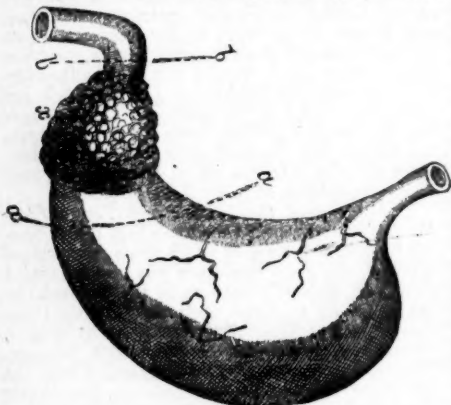


Fig. 1.—Shows position of growth, *s*, and lines of division, *a a*, of stomach, *b b*, of duodenum.

of these were removed; but, as they were found to involve the biliary and pancreatic ducts, it was thought advisable not to interfere too much with them, for fear of injuring those important structures.

4. *Closure of the Opening in the Stomach, and the Insertion of the Duodenum into it.*—The opening in the stomach was next partially closed by twenty-one silk sutures, commencing from above downward, *i. e.*, beginning at the lesser curvature, a small opening being left at the great curvature for the insertion of the duodenum. The silk ligature was then removed from around the duodenum, and the orifice of the bowel was attached to the opening which had been left in the stomach at its greater curvature

by means of nineteen silk sutures (Fig. 2). The sutures having been cut short and the sponge

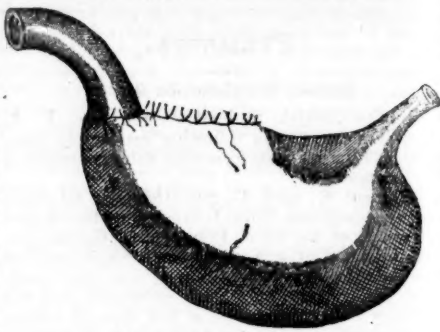
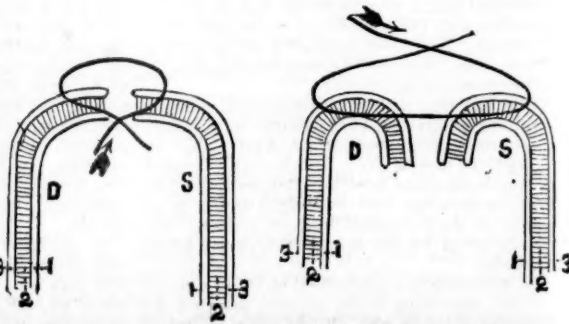


Fig. 2.—Shows condition of part after removal of growth and attachment of duodenum to stomach.

removed, the stomach was returned into the cavity of the abdomen; all bleeding points were arrested, and the peritoneal cavity was then carefully sponged out.

In the insertion of the sutures two different methods were adopted, with the object in each case of bringing into contact with one another a considerable margin of the opposed serous surfaces of both stomach and intestine. In uniting the posterior walls of the duodenum and stomach, the sutures were inserted from within (according to the plan recommended by Billroth), the needle being introduced between the mucous and muscular coats of the stomach (*s*), and then made to pierce both muscular and serous coats; it was then passed in the reverse direction through the coats of the duodenum (*d*), *viz.*, first through the serous and muscular coats, and then between the muscular and mucous coats. In this way, on drawing tight and tying the sutures, a considerable margin of the serous coats were brought into contact with each other, and the margins of the mucous membrane at the



Figs. 3 and 4.—*s*, Stomach, *d*, Duodenum. 1, Mucous Membrane, 2, Muscular Coat, 3, Serous Coat. The dark line with the arrow shows the direction in which the sutures were passed.

same time fell into apposition, covering over the knot of the sutures, which in this way was left

between the mucous and muscular coats at the point of junction of the stomach and bowel (Fig. 3). In uniting the anterior walls of the duodenum (D) and stomach (S), and also the two cut surfaces of the stomach itself, a somewhat different method was adopted, the sutures being entered from without. The opposed margins of the cut surfaces were slightly inverted (Fig. 4), so as to bring the serous surfaces well into contact with each other; the needle was then introduced from without, so as to pierce in succession the serous, muscular, and serous coats of each opposed surface. After tying the sutures, the knot lay altogether external to the stomach and bowel, and at the same time their serous surfaces were brought well into apposition with each other.*

5. Closure of the External Wound.—This was effected in the ordinary way, by means of nine silver wire and sixteen silk sutures, passed so as to include the peritoneum. Considerable difficulty was, however, experienced in bringing the margins of the wound into contact with one another, owing, no doubt, to the contraction of the divided recti muscles, and I think, therefore, that on this account a longitudinal incision through the abdominal walls would be preferable to the transverse one as recommended by Billroth. The wound was then dressed antiseptically, and as I regretted afterward, no drainage tubes were employed. The patient was then removed to bed, the operation having lasted exactly one hour and a half. No sickness occurred during its performance, and a very fair pulse was maintained throughout.

Nutrient enemata and subcutaneous injections of morphia were administered every four hours. At 1 P.M. (one hour after the conclusion of the operation), pulse 88, full and strong; temperature 97.6°. The patient was sleeping quietly. There was no sickness. The extremities of the skin were warm. At 5 P.M., temperature 98.4°; pulse 120. He was quite conscious, and complained of thirst and pain about the abdomen. He appeared to have quite rallied from the shock of the operation. At 10.30 P.M. temperature 99.8°; pulse 138, soft but regular. The patient was sleeping quietly; the extremities and surfaces of the body were warm. At 12.30 A.M. temperature 102°. He had been sleeping quietly for some hours. There had been no sickness since the operation. Shortly after this, the night nurse noticed a change come over the patient, and death took place very suddenly, about 1.30 A.M., nearly fourteen hours after the conclusion of the operation.

A Post mortem Examination was made the following day. The internal organs were all perfectly healthy. No secondary deposits were present, except in the mass of glands to which reference has been made as surrounding the head of the pancreas. There was slight injection

of the parts in the neighborhood of the stomach, and a quantity of bloody serous fluid was found in the peritoneal cavity. As regards the parts which had been divided, a certain amount of union had already taken place, a thin layer of lymph having been poured out, as the result of which there was slight adhesion between the opposed serous surfaces of the stomach itself, and also between those of the stomach and the duodenum. The whole of the growth had been removed, the portion of the stomach which had been left, and the bowel itself, beyond the point at which it had been divided, being found perfectly free from any trace of the disease. *Microscopic Examination* of the parts removed at the time of the operation (*i. e.* the pylorus, and about one-third of the anterior and posterior walls of the pyloric extremity of the stomach) showed that the growth consisted of scirrhus cancer. The pylorus was entirely surrounded by the growth, its opening being so contracted as barely to admit the tip of the finger. The pyloric extremity of the stomach was also involved, more especially its anterior wall, the mucous surface of which was studded with a number of distinct nodules. The duodenum was similarly affected for about half an inch; beyond this point the walls of the bowel were perfectly healthy.

Remarks.—With regard to the cause of death, I suppose it must be referred to what is generally included under the term shock; but inasmuch as reaction had become fairly established, the patient appearing to have quite rallied from the effects of the operation, and since death was preceded by a sudden and rapid rise of temperature, may not the fatal result in this, as in many other cases of abdominal surgery, be possibly due to what has recently been described as "septic collapse," or "septic intoxication," that is to say, pure chemical poisoning, from the sudden absorption of a large quantity of poisonous material by the extensive absorbing surface of the peritoneum?

From the nature of the operation, involving as it does the division of the stomach and intestine, it is not possible to keep the parts involved perfectly aseptic; and even if it were, from the physiological law of osmosis, it is not improbable that the fluid which is poured out into the peritoneal cavity soon becomes infected by the formed ferments which are present in the alimentary canal, and which may make their way into it through the walls of the intestine. Hence a septic peritonitis is liable to be set up, which may destroy life in a few hours, from a very acute form of blood-poisoning.

The rapid rise of temperature just before death, the sudden collapse after reaction had become established, and the presence of a quantity of sanious fluid in the cavity of the peritoneum are, I think, arguments in favor of the correctness of this theory.

For these reasons I should, if called upon to perform the operation again, be disposed to introduce one or more drainage tubes into the abdominal cavity through the external wound, or through a counter-opening made in the loin, and attempt to draw off from time to time, by means of a syringe, any inflammatory effusion which might collect.

* The second row of sutures, passed so as to include only the cut margins of the mucous membrane (as recommended by Billroth), were not employed, as they seemed unnecessary, the two mucous surfaces falling accurately into apposition with one another without. Silk sutures were used in preference to catgut, as the latter, if acted upon by the gastric juice, might have softened and given way before union could have taken place.

Gunshot Wound of Brain.

The *Lancet* records the following wonderful case: On June 14th, a young gentleman, nineteen years of age, was found lying on the ground near Torquay, with a pistol wound in the head. He was taken to the Torbay Hospital, and from information kindly afforded us we are able to state the nature of his injuries. There was a wound in the right temporal region, perforating the skull and the dura mater, and permitting the escape of brain matter. There was also extensive comminution of bone in the left parietal region, from internal impact of the bullet, but here there was no external wound. When found the lad was conscious, and all symptoms of shock and concussion soon passed off. On the fifth day left facial and lingual paralysis was noticed; no other paralysis or any alteration in sensibility has since developed itself. The temperature has been within the normal range, except a single rise to 102°, on the third day, and the pulse has been regular throughout, only ranging from 60 to 68. The lad eats and drinks well, and his intellectual faculties are good. The wound is granulating, and up to the 5th inst. no fresh symptom had arisen. The bullet is conical, one-third of an inch in diameter, and it remains lodged in the cranium. According to Dr. Ferrier's experiments, the injury to the convolutions is localized in and near the ascending and middle frontal convolutions. This case has been mentioned in the lay press, where it has been erroneously stated that a considerable part of the frontal bone with brain matter attached had been shot away, and great surprise has been expressed at the boy's living after such an injury. The case is very interesting and remarkable, but by no means unique. Larrey drew attention to the fact that bullets may remain encysted in the brain for years without producing symptoms. In the surgical history of the American war many cases of recovery—some partial, some complete—after perforation of the brain by bullets, and after comminuted fractures with destruction of brain matter, are recorded. In the Franco-German war other similar experiences were met with, and Dr. Gilbert Smith has related the case of a man who recovered from a sabre-cut received in the first Carlist war. The wound was followed by hernia of the brain, and the man was seen alive and well several years afterwards, with a large cavity within the skull, and an opening in the bone. His faculties were unimpaired, as shown by the fact that he was engaged in his business of a photographer. It is a well known fact that injuries to the anterior part of the brain are less serious than similar injuries inflicted further back.

—The culture of cinchona in India began in the year 1858; especially cinchona succirubra, as also cinchona calisaya, were planted, while cinchona officinalis did not seem to prosper so well in that climate. There are now in India 4,677,720 China trees; 4,034,585 are cinchona rubra; 412,695 cinchona calisaya; 199,893 a variety of the latter, and 30,592 other kinds. Last year 9296 pounds cortex were brought into commerce.

REVIEWS AND BOOK NOTICES.

NOTES ON CURRENT MEDICAL LITERATURE.

—We have received the First Quarterly Report of the Eye and Ear Dispensary of Starling Medical College, of Columbus, Ohio.

—West Virginia has never aspired to a leading position among the States of the Union, yet the Report of the Transactions of its Medical Society, which lies before us, affords ample evidence that this good State has thoroughly held its own from a professional point of view. A complete index makes easily accessible all the really good material in this volume.

—The Report of the Transactions of the Medical and Chirurgical Faculty of Maryland, at its eighty-fourth annual session, contains very much of interest. The Report of the Section on Sanitary Science contains an account of the yellow fever epidemic of 1855, the ravages of which did so much to arouse the slumbering people to a sense of their danger, which resulted in a Convention in Philadelphia in 1857, Baltimore, 1858, New-York, 1859, and Boston, 1860, to discuss anew the subject of quarantine and sanitary regulations. Dr. Van Bibber contributes a valuable article on the "Drinking Waters of Maryland," illustrated by a map. Anatomy, surgery, practice of medicine, obstetrics, physiology, all the branches of our science, indeed, are represented in these Transactions, which are well worthy of careful reading.

—Dr. Charles A. Oliver has recently been making some experiments on the comparative action of sulphate of daturia and of sulphate of hyoscyamia upon the iris and ciliary muscle, which we receive as a reprint from the *American Journal of Medical Sciences*, July, 1882. Hyoscyamia will sometimes produce such grave constitutional disturbance that we must be cautious in its use. The astringent and irritant action of the two drugs upon the conjunctiva may be avoided by the use of a neutral salt. The long-continued dilatation of the pupil, and the slow return of the ciliary power occasioned by the amounts given of both the drugs, render them absolutely useless when we desire accurate ophthalmoscopic examination in cases dependent upon their use. Such are a few of the results of these observations, for an intelligent comprehension of which it would be necessary to peruse the pamphlet.

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D. G. BRINTON, M.D., EDITOR.

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**THE APPROPRIATION FOR THE PREVENTION
 OF EPIDEMICS.**

There has been a good deal of hard feeling about that \$100,000 appropriation for the prevention of epidemics. The National Board of Health expected it and did not get it, and in consequence have had to cut down their organization and suspend their *Bulletin*.

The clause of the Appropriation bill ran thus:—

"The President of the United States is hereby authorized, in case of a threatened or actual epidemic, to use a sum not exceeding one hundred thousand dollars, out of any money in the Treasury not otherwise appropriated, in aid of State and local boards, or otherwise, in his discretion, in preventing and suppressing the spread of the same."

After considering the matter, the President decided to employ this contingent appropriation through the agency of the Treasury Department, and that, in case of a threatened or actual epidemic, immediate action should be taken, upon application from the Governor of a State addressed to the Secretary of the Treasury.

This meant that the spending of the money is to be through the United States Marine Hospital Service, a most excellent and efficient branch

of our civil medical staff, of which, as most readers know, DR. JOHN B. HAMILTON is Surgeon General.

He has issued a circular to the officers of the corps, calling their attention to the following paragraph of its regulations:—

"Medical Officers and Acting Assistant Surgeons are, under the direction of the Supervising Surgeon General, required to observe and to aid in executing the quarantines and other restraints established by the health laws of any State, and to report forthwith to the said Surgeon General any important event or fact that may come to their knowledge bearing upon the importation, outbreak, or spread of cholera, yellow fever, smallpox, typhus, or other epidemic disease, at or near their respective stations."

This is all very well, and we do not doubt but that the interests of the public will be well cared for, and the money honestly and judiciously expended by the Marine Hospital Corps. It has proved itself a most useful and intelligent body, and a hundred thousand for it to expend is little enough.

But there were peculiar fields of investigation and research, of the very highest value to science and health, to the country and to humanity, in which the National Board of Health was working, which must now lie fallow. Its *Bulletin* was indispensable to the statistician, and its authority daily growing.

That this Congress prostituted \$19,000,000 of the people's money to the iniquitous and fraudulent River and Harbor Improvement Steal, and not one cent to the National Board of Health, are two facts that should consign every member who voted for that measure to political and personal ignominy for the rest of his life. Such a body of legislators are as destructive of the moral as they are negligent of the physical health of the nation. The heavily taxed people are robbed of millions, and the pittance asked to guard against pestilence is refused. Not a single representative who aided in these two actions will ever have a second term, if his constituents are honorable and intelligent people.

It is the solemn duty of the voters of this country to demonstrate, by unmistakable action, to their recreant representatives that they heartily disapprove of their dishonest and foolish legislation.

SANITARY INSPECTORS.

The story has been told of the physician who met an undertaker on a warm day, in the early summer, before a street stand, on which was exposed for sale a variegated assortment of green and unripe fruit. They stopped, shook hands, glanced toward the stand, smiled, and with a look of gratification walked on, arm in arm, delighted with the prospects of active business which this view afforded them. We were forcibly reminded of this story a few days ago, when, passing one of these stands on a crowded thoroughfare, we noticed that the enterprising proprietor had selected from his stock an assortment of *rotten* bananas, peaches and apples, which he had placed on a board by themselves and labeled for sale at a price much below that asked for the ripe and wholesome fruit. Our first feeling was one of anger, which soon gave way to reflection, as we realized that this poor, ignorant man was probably unaware of the full extent of the injury he was tempting his fellow creatures to do themselves. We thought how good an act could be performed by some philanthropist whose purse is always open to benefit mankind, by purchasing this rotten and poisonous fruit from the vender, who would thereby be protected from a loss which had been caused through no fault of his; and taking it to the next corner, throw it all into the common sewer, thereby saving many of his fellow beings from the dangerous sufferings which the consumption of this rotten mass would almost inevitably produce, and the cheapness of which is a temptation well nigh irresistible to the ignorant and poorer classes of our population.

But philanthropists (noble men as they are) do not, as a rule, give much attention to these seemingly trivial matters to the uninitiated. Sitting in their offices they dispense their wealth with a lavish hand for the erection of hospitals and educational institutions, but these little matters they neglect, because, we believe, their attention has not been sufficiently called to them. We believe that a system of so-called sanitary inspection does exist in our city, and that some one has the authority to prohibit the sale of unwholesome fruit, but if such a law does exist, we must, per-

force, from the unerring evidence of our senses, regard it as a dead letter; its observance, if it ever was observed, is a matter of history, dating so far back that no man's memory can recall it. We should awaken from this state of lethargy, of dangerous inactivity, and our philanthropists, who have time, means, and inclination, are the ones to inaugurate such a reform. We want a corps of sanitary inspectors, whose time shall be devoted to honestly inspecting the sanitary condition of the districts under their charge, and who shall be given the authority to order the removal or abatement of any nuisance that may exist and to enforce their orders.

In the instance of the rotten fruit referred to, they should be authorized to empty it into the common sewer. The tobacco merchant cannot sell ruined tobacco, because his customers are too sharp to buy it from him; if, then, the customers of the street fruit vender are too ignorant to discriminate between what they ought and what they ought not to eat, they should be protected by those wiser than themselves. This power to prevent the sale of, should apply equally to all articles commonly used for food. These inspectors should regularly visit and carefully inspect all provision shops and market houses in their districts, and condemn that which is unfit for use, and see that their condemnation is not disregarded. It will not do to leave this sanitary reform to professional politicians, for two reasons.

1st. They have not the requisite knowledge of sanitary science to enable them to efficiently carry out the reform.

2d. Professional politicians are, as a class, notoriously lazy, except at electioneering times, when they are full of activity, whisky and promises, the latter of which are forgotten as soon as the election is over. They would neglect such work as would be necessary to carry out this reform, because by so doing they would make enemies and lose votes in their districts.

This duty should be relegated to intelligent physicians who have made a special study of the science of hygiene. In our last issue we recommended the establishment of a corps of police surgeons. By combining the two duties, by making an intel-

ligent physician, who is also a sanitarian, the police surgeon and sanitary inspector of his district, and paying him a liberal salary, he could devote all his time to his dual duties, and they would both be efficiently carried out. There are plenty of physicians to fill these positions satisfactorily, and when such a reform becomes a reality, then, indeed, and not until then, will we have a city of the sanitary condition of which we can justly be proud.

MEDICAL EXPERTS.

This subject has been written upon, time and time again, and yet no progress has been made toward remedying the abuses that exist in the present manner of calling medical experts. To say that it is impossible to procure a fair and unbiased opinion on any intricate expert question, from a gentleman called and paid by one party to a litigation, seems like a slander upon the honesty and integrity of all experts. While this statement is eminently true, it is not really a slur upon the distinguished men who are sometimes summoned as experts, for the following evident reason: We are all human, and none of us perfect. It is almost impossible for the average man to help but have his mind influenced more or less toward the side who look to him for vindication, and from whom he is to receive the remuneration for his labor. Unconsciously to himself, his mind will be influenced in small details, and where there is room for doubt he will be very apt to give the benefit of the doubt to his own side. The abuses that are possible under the present system seem to be recognized by all, yet for some unaccountable reason there seems to be but little effort at reform. Again, the obstinately maintained differences of opinion expressed by the experts on either side, the one oftentimes diametrically opposed to the other, must have a tendency to place our noble profession in a ridiculous light before the unthinking public. This fact was well illustrated in a case recently tried in Scotland. A man injured on a railway brought suit against the company, and experts were called by either side. Their testimony was so conflicting that the judge, when addressing the

jury, said that "the medical evidence was unsatisfactory, and left on the mind a distressing impression that the science of medicine was a science simply of guessing and experts. They had had doctors examined, who, with equal confidence and dogmatism, expressed contrary opinions upon the same condition of things, with no hesitation whatever; no scruple about expressing the clearest opinion of what was and what should be. The jury must therefore exercise their common sense, and throw overboard the medical opinions of those medical gentlemen, if they thought the greater part of it was guessing, and come to the facts." It is both unfortunate and unpleasant that such scathing censures should be passed upon our profession when we are not really the ones to blame. Every physician willingly admits that medicine is not an exact science, and that, therefore, differences of opinion on medical questions are not only natural but must be. But it is these public exhibitions of divergent views before those who, on account of the want of medical training, are unable to thoroughly appreciate why such differences should exist, that bring us, as a class, into so ridiculous a position. There is but one remedy for this morbid condition, and that has been pointed out and recommended by the American Medical Association. We must have legislation that will empower the court to call experts, denying absolutely this privilege to either side. Thus can the unbiased, uninfluenced and impartial expert calmly and scientifically render his evidence from an unprejudiced standpoint, and thus will the ends of justice be more efficiently served, and the dignity, respectability and honor of the medical profession be vindicated.

NOTES AND COMMENTS.

Tertiary Syphilis in Childhood.

When syphilitic symptoms are observed in childhood toward the period of puberty, it always becomes a question to determine whether the symptoms are due to congenital or acquired syphilis.

Roussel, in a recent work, shows that Ricord in France and Henry Lee in England, admit that

hereditary syphilis may appear several months and even several years after the birth of the child. The opinion of Ricord regarding the transformation of syphilis into scrofula is well known; and Erasmus Wilson, Boerensprung, E. Wagner and Vieil admit that hereditary syphilis leads sometimes to lupus, sometimes to scrofulous manifestations, an opinion which has been combated by Hebra, Virchow, and Kaposi.

As regards the period of infant life when the symptoms of hereditary syphilis appear, MM. Trousseau and Laségue, as early as 1847, combated the opinion of those authors who admitted that the manifestations of the constitutional malady might appear after several years; they assigned the seventh month as the extreme limit.

M. Roussel shows that hereditary syphilitic manifestations generally appear during the first, second or third month after birth, and is of opinion that in most of the reported cases of tardy hereditary syphilis the disease was contracted after birth. This may happen through direct contagion from another child, or from relatives, or from criminal attempts, and such cases are more frequent in the crowded tenement houses of large cities than is generally believed; the author gives a number of such cases. As regards the treatment of such cases, M. Roussel affirms that he has obtained excellent results from iodide of potassium, carrying the dose as far as 150-180 and even 210 grains per diem, for a child from 9 to 18 years of age.

Syphilis and Alcohol.

In a recent memoir published in *la France Médicale*, M. Barthélemy calls attention to the exceptional gravity of syphilitic skin eruptions in patients addicted to the habitual use or abuse of intoxicating liquors. The observations which he gives were all collected while the author was chef de clinique in Fournier's service, and relate exclusively to the waiter girls employed in "brasseries," who receive the name of "invitueuses," because it is their business to have as much liquor ordered as possible. In the pursuit of this métier, they are obliged to drink large quantities of intoxicating liquors; one of them absorbed in one day forty-two glasses of beer, five liqueurs and one "grog Americain;" this, of course, was an exceptional case; but most are continually drinking, in order to incite customers to order for them. When these girls contract syphilis, every symptom, even the primary chancre, is of gravity. In one case the eruption did not disappear from the cutaneous and mucous surfaces

for ten years. The chancre in one case spread and became as large as a silver dollar, and was surrounded with an extremely indurated border, and notwithstanding treatment, the chancre lasted three months. In another case (Obs. III) the chancres were still present when a generalized papulo-hypertrophic eruption appeared over the whole body.

It was remarked also that secondary and tertiary eruptions appeared much more rapidly, were of greater intensity and of longer duration.

The moral is obvious; according to one of themselves, "almost all the 'filles de brasserie' are affected;" and the same is undoubtedly true of the waiter girls in the bar-rooms which disgrace our large cities.

Wire Ligatures for Divided Bones.

Dr. T. Symptom records two cases in the *British Medical Journal*, wherein he obtained excellent results in approximating divided bones with wire ligatures. The first case was a crushed foot; he amputated according to Pirogoff, and fastened the os calcis to the tibia by iron wires. The operation wound was completely healed in ten days, but the wires were left in six weeks. The second case was a resection of the knee joint. The femur and tibia were brought firmly together by two iron wires, one on the outer, the other on the inner aspect; a most complete union was obtained. The operations were performed under antiseptic precautions, and the wire caused no irritation. It is desirable that the apertures made by the drill should be at least a quarter of an inch from the sawn surfaces, and that these surfaces should be very accurately approximated by twisting together the ends of the wires; not more than twice, however, otherwise difficulty will be experienced in removing them. Iron wire, such as that used for the stiletts of elastic gum catheters, in size about No. 22 of the gauge, will usually be found the best.

New Treatment of Irreducible Hernias.

In the *Gaz. des Hôp.* (March 25, '82) Dr. Phil. de Saint-Maudé recommends the treatment of irreducible hernias with the hypodermic injection of muriate of morphia. Already, in the year 1877, Phillippe reported three cases, in which, after repeated and fruitless endeavors to induce taxis, the reposition of the hernia became possible on the hypodermic injection of the remedy mentioned. Phil.'s pupil, Bousсенot, has now published an article in which he reports five new cases. In all of them reposition became pos-

sible after five to six drops of a two per cent. solution—repeated every fifteen minutes till success was complete—had been injected under the skin over the hernia. These were all cases in which all previous attempts at taxis had been useless, and in two of the cases symptoms of strangulation had already made their appearance.

As there cannot be any possible danger connected with these hypodermic injections, if performed with the usual care, it would be well to try them in all such cases, before proceeding to an operation which, under the most favorable circumstances, will always be attended with more risk than a successful taxis. The question in our mind is only this, if it would not be far better, after one fruitless attempt at taxis, to have recourse immediately to the hypodermic injection of morphia, instead of making repeated useless trials, which can only make the later success more doubtful, and irritate the parts more than seems necessary.

Application to Corns.

A correspondent complains that he has not been able to employ Dr. Traill Green's mixture for corns, recommended in the *REPORTER*, July 8, as it became solid, and could not be applied with a brush. His letter having been referred to Dr. Green, the latter writes:—

"I have never heard a patient say that it cannot be applied with a camel's hair pencil. If the bottle is not kept closed the collodion loses its ether, and the mixture loses its fluidity. The specimen referred to above has been standing for several weeks, and has lost none of its fluidity, and can be applied with a soft brush with perfect ease. I am surprised that any one should have any difficulty in preparing or using it. If I had discovered any special treatment in its preparation I would have stated it. If any one has not succeeded there must be an error in weight or something wrong in the materials. If any find their mixture wanting in fluidity more collodion than the quantity named will give it that property, but I have not had occasion to use more."

Dr. Green forwards us a bottle of it, and it is certainly fluid, and could readily be applied with a brush.

Heat and Health.

A respected New York physician writes us in quite severe terms, about our editorials on the relations of heat to life. He claims that the heavy July mortality was owing *directly* to heat. But he adds:—

"Esculents suffer a speedy decay, for lack of moisture, by the fierce rays of the summer's sun. This extreme favors and hastens fermentation

and decomposition, putrefaction fills the air with the effluvia of sewers, cesspools, and drains, which man cannot endure with safety to life."

This, however, is just the point we make—that it is largely the *indirect* effects of the heat, as those he here mentions, which increase the death rate. For a New Yorker, he takes a rose-colored view of his city. Thus he writes:—

"Milk is cheap, excellent, and abundant here."

We recommend to him a little closer study of the sanitary statistics of his own city. Here is an extract from a New York letter of August 19th, in a Philadelphia paper:—

"Dr. E. H. Bartley, chemist of the Brooklyn Health Department, has rendered a report of his analysis of milk from swill-fed cows, and he says that the milk is of such a dangerous character that it should be strictly kept from the market. The report also cites two instances where children fed upon such milk died from its effect."

It is notorious that thousands of gallons of swill milk are sold in New York city every day.

Boiled Milk in Summer Complaints.

Dr. H. V. Sweringen writes to the Cincinnati *Lancet and Clinic*, emphatically condemning the advice, so often given, to boil the milk administered to children suffering from summer complaints. He objects to this procedure because boiling will coagulate the albumen, thus rendering it very difficult of digestion. He is right. *Boiled* milk is utterly unfit for children; but since the majority of children will refuse milk when it comes cold out of the refrigerator, it will be well to place the cup or bottle containing the milk into a pan of warm water for a few minutes; this will remove the chill, without coagulating the albumen.

Sanitary Inspection of Schools.

It is well remarked by the *Public Ledger*, of this city, in view of a proposed step in advance in public hygiene, that at any rate one item estimated for by the Board of Health should be allowed by Councils. This is the \$6000 asked for sanitary inspection of the public schools by educated physicians. It is not to be supposed that such inspection is required only to ensure proper ventilation, heating, cleanliness of the buildings, etc., but it is also to protect the school children from scarlet fever, diphtheria, varioloid, smallpox and other contagious diseases. No estimate yet proposed by any department can be put to better use. The Belgian city of Brussels sets Philadelphia a good example in this matter.

SPECIAL REPORTS.

NO. X.—OPHTHALMOLOGY.

BY CHAS. S. TURNBULL, M.D.

A Case of Quinine Amaurosis Manifesting Itself Primarily in One Eye. *Arch. Oph. Vol. XI, No. 1.*

C. M. Hobby, M.D., Iowa City, Iowa, reports the case of a young lady, aged twenty one, in whom, for severe left supra-orbital neuralgia, subsequently, what was supposed to be episcleritis of the left eye occurred, accompanied by conjunctival injection and œdema of the eyelids. The neuralgia being considered malarial in character, was treated with large doses of quinine, and fomentations of belladonna were applied to the eye. Large doses of quinine were required, to produce cinchonism. Patient was anæmic, and on ophthalmoscopic examination, both before, and still more markedly after, the administration of quinine, ischæmia of the retina was noticed.

At the time the patient came under my observation she presented an anæmic appearance, had very little appetite, and was still suffering from occasional attacks of neuralgia. There was no injection of the conjunctiva or sclerotic; the right eye was apparently normal; in the left eye the pupil was widely dilated, and not appreciably affected by light. Right eye = $\frac{16}{\infty}$; Left eye = $\frac{3}{\infty}$. On the fourth day following she returned with both pupils dilated to the utmost. R. $\frac{16}{\infty}$; L. $\frac{3}{\infty}$. At this time she reported that the left eye began to get worse upon her return home, but she noticed no trouble with the right eye until the previous day.

Recognizing the probable existence of quinine amaurosis, Dr. Hobby commenced the use of strychnia hypodermically, increasing the quantity each time, until the physiological effects were apparent. The improvement was rapid, and in ten days the acuteness of vision had returned from $\frac{6}{\infty}$ to $\frac{16}{\infty}$ for both eyes, and the visual field of each eye, which had been reduced to about one-tenth of the normal, had doubled. During the use of strychnia the malarial symptoms disappeared, and the general physical condition improved. Six weeks later the acuteness of vision was unchanged and the visual field much increased in extent, but still less than half the normal.

The inference to be drawn from this case would seem to be that the toxic effect of quinia primarily manifests itself in a single eye.

As there were symptoms of an episcleritis and supra-orbital pain of the left eye, and as belladonna had been used and the light had evidently had an irritating effect upon the retina of that

eye, we would prefer to infer that in one congested, if not inflamed, eye of a pair to be affected by poisonous (toxic) doses of quinia, amblyopic symptoms are primarily manifest in the weaker eye of the two, both of which must sooner or later participate in the toxic amblyopia.

H. Derby, M.D., of Boston, reports (*Arch. Oph. Vol. XI, No. 1*)

Three Cases of Hydrophthalmus Treated with Iridectomy,

which he prefaces by the following remarks:—

“Cases of hydrophthalmus, cornea globosa, are as rare as they are unpromising. In the record of twenty years' practice I found but five instances of this disease. The only treatment seriously proposed has been iridectomy; and the encouragement to the performance of this operation has been given on grounds that are mainly theoretical. Instances of its performance have rarely been published. In his monograph on the subject,* written in 1869, Muralt states that he is not aware of any results having yet been recorded, and gives, himself, the notes of a single case. He admits that the operation is, in this disease, attended by unusual danger as regards healing and the chance of hemorrhage. And Schmidt, writing in 1877,† says “The secondary glaucoma which complicates cornea globosa (hydrophthalmus congenitus) offers a poor prognosis for iridectomy. Besides the danger of cyclitis, which may be easily excited by this operation, there are perilous possibilities of purulent infiltration of the vitreous, or of choroidal hemorrhages. When in these cases the rapid increase of intra-ocular pressure renders some kind of action necessary, it is best to try the effect of repeated paracentesis, which is certainly free from danger.”

As we stated in the outset, the disease is very rare. Operations for its relief are, however, so much rarer, and so infrequently reported, that these cases here cited may well serve as a basis for generalization. They show that iridectomy, undertaken at a late stage of the affection, is liable to be complicated by hemorrhage, and to leave the eye in a state of chronic and painful irritation. But it cannot be denied that the disease is arrested, and that an amount of vision that was rapidly becoming extinct is spread over a series of years, to the great comfort of the patient. Case one had already lasted 14 years, and there was distinct optic-nerve atrophy at the time of the operation. Case two at least ten. Case three was taken in an early stage, and the

* Über Hydrophthalmus Congenitus. Zurich, 1869, p. 50.

† Graefe-Saemisch, Handbuch der gesamten augenheilkunde, vol. v, p. 136.

disease at once stayed. Eleven years have elapsed and no progress is manifest. I feel, therefore, justified in dissenting from the writer in Graefe-Saemisch, and in advising iridectomy.

Dr. J. L. Thompson, of Indianapolis, Indiana, records some "Practical Remarks on the Extraction of Foreign Bodies from the Iris."*

In the December number of the *Archives of Ophthalmology*, Vol. x, No. 4, Dr. Hirschberg, of Berlin, in his article on the

Extraction of Chips of Iron and Steel from the Interior of the Eye,

quotes from the *London Lancet*, as follows:—

"On May 18th, 1859, a girl, aged fourteen, was brought to St. Mary's Hospital, under the care of Mr. White Cooper. The previous day, while standing near her father, who was turning a piece of hardened iron in a lathe, a chip struck her left eye, which had since been in constant pain, though the sight was not materially affected. The chip was sticking in the iris, almost midway between its upper border and the pupil. The anterior chamber was full, and there was no mark of entrance in the cornea. . . . Mr. White Cooper, fearing that difficulty would arise in grasping the smooth metal with forceps, suspended as it was in the loose membrane, decided on trying the effect of a magnet. The iris having been brought under the influence of atropine, whereby the foreign body was drawn near the margin of the cornea, the patient was chloroformed, and a cataract knife was passed through the cornea opposite the chip, and a sufficient opening made for its escape. A magnet was then applied to the wound, and in an instant the chip leaped from its situation in the eye and attached itself to the magnet. . . . The eye was well in a week."

To the majority of the readers of the *Archives*, doubtless, the report of this case without comment will do no harm; but to the inexperienced it is likely to work immense mischief, by causing them to use atropine in similar cases. Yet we think that the end by no means justified the means used. The following case will show what dangers attach to the use of a mydriatic where foreign bodies lie in the anterior chamber.

W. F., aged 40, came to me in 1875, two days after the receipt of an injury to his right eye while hammering the iron hoop from a paint keg with the blade of a hatchet. A small piece of either the hoop or the hatchet flew into the eye, passing through the cornea and lodging in the stroma of

* To those of our readers who are settled in either a manufacturing or a mining district, we would call especial attention to Dr. Thompson's eminently practical remarks and valuable hints on the use of atropine.
C. S. T.

the inner lower portion of the iris, midway between the ciliary and pupillary margins. The corneal wound had entirely healed, leaving scarcely a trace of opacity. His vision was good and he suffered but little pain. I proposed removing it, with probably a small portion of the iris, but he went off, promising to return shortly. I saw nothing of him for two days more, when he presented himself again, with the iris fully dilated and the body forced into the lens. I asked him how he came to use the atropine, and he replied that he had been reading "Gunn's Domestic Medicine." A well-marked opacity of a portion of the lens so obscured the metal that it could not be seen. Of course, I did nothing further than to watch and wait further developments. The last time I saw him, which was about two months after the injury, the lens was almost totally cataractous, with no inflammation remaining. He then passed from under my notice.

In the above case, by sacrificing a very small portion of the iris, he could have been given useful vision, and probably even without said sacrifice; but after the use of the atropine the body was forced through the delicate iris, the lens wounded, and now, of course, if anything is done it must be the removal of the lens, a very questionable operation where the other eye is not aphakial.

How would atropine have acted in the following case?—

White, Joseph, aged 28, a stone-cutter, was wounded while dressing a stone with hammer and chisel, Jan. 31st, 1880. He immediately went to a "Surgical Institute," where, he says, they worked on him every day until he came upon me, on Jan. 5th, 1881, when I found a foreign body lodged on the upper pupillary margin of the iris, about three fourths of it upon the iris and the remainder hanging over and into the pupil. I placed him under chloroform, made a section of the cornea at its junction with the sclerotic, and removed the body, with a small portion of the iris, without any difficulty whatever, before the class, at our City Hospital. The operation was made on Saturday, and he read in the presence of the class on the following Wednesday. Now, had one used a mydriatic in his case, the body would as surely have been stripped off of the iris and against the lens, as was the foreign body forced through the iris, in the case above mentioned.

I have simply reported the two cases to show the danger of the use of atropine where bodies are imbedded in the iris. Many others, where

percussion caps and pieces of iron have been so placed, have I, as well as all other eye surgeons of experience, had to do with, but their mention in detail would be unprofitable and superfluous.

Rupture of the Eyeball in its Posterior Hemisphere, from a Blow in the Face (*loc. cit.* p. 45).

By Julian J. Chisholm, of Baltimore.

The two cases of recent occurrence which I here report, although novel in my personal experience, would not have had publicity beyond the staff of the Presbyterian Eye and Ear Charity Hospital, before whom the diagnosis was made and verified after extirpation of the destroyed eyeballs, had I not found in a recent work on "Injuries of the Eye," by Ferdinand Von Arlt, a recognized authority on such matters, the following passage. I make the quotation from a translation of the German work by Dr. Chas. S. Turnbull, an American publication.

A paragraph on page 37 reads as follows: "Cases of rupture of the sclerotic are not rare. Such rents extend, without exception, to the ciliary body, even through it. Of ruptures in the posterior and sclerotic area, only one case is recorded (by Bowman), and here the rupture was not recognized until after the eyeball had been enucleated."

From the same work I make an extract from pages 22 and 23: "When a foreign body impinges against the eye with a certain degree of sudden force, and, on account of certain physical properties, such as size, bluntness, etc., cannot perforate its tunics, it expends this force by contusing the surface against which it strikes, or it causes either flattenings or indentations, the degree or extent of which depend on the character of the injuring surface, while, in the moment of injury, perhaps, no movement of the eyeball, as a whole, takes place. Now, an indentation or flattening of the eyeball cannot plausibly be considered possible, unless the same also changes its form *in toto*. Suppose we consider the point attacked as the pole, and the direction of the attacking force as the axis of a sphere; then the equator of the latter must become longer at the moment of the injury. Any resistance at the opposite wall, especially if distributed over an extensive area, will only serve to increase this change of form. The occurrence of a gap in such a wall, or of a projection upon it, will, when the globe is pressed against, produce a localized bulging—in the former case corresponding in shape and dimensions to the gap, and in the latter to an indentation or perforation of the sclerotic; but such conditions hardly, if ever, occur." Sclerotic rupture is of rare or non-

occurrence in those very localities where choroidal rents are most frequent." Again, from page 27: "The constant parallelism of the sclerotic rent to the corneal margin has an additional reason in the histological fact that the fibres of the sclerotic coat run parallel to the latter, within the confines of the ciliary region." Again, at page 38, "The sclerotic rent is linear or slightly arched, more or less serrated, and usually runs parallel to the limbus cornea, at a distance from two to five millimeters from the latter. In one case only (Schroeter, *Klinische Monatsblätter*, 1866, p. 248) did the rent run at an acute angle."

The following extract is made from a standard work on

Eye Injuries.

by George Lawson, F.R.C.S. "The split in the sclerotic is almost invariably near the margin of the cornea."

CASE 1.—N. L., aged 27, was struck in the left eye with a chair, during a drunken broil. He was knocked down insensible, and had his nose and brow badly cut. When he came to himself he was taken home. In the meantime the eyeball had become very prominent, from swelling. He complained of great pain in it, and also of loss of sight. He was brought to the Presbyterian Eye and Ear Charity Hospital, for treatment, on the day after the accident. I found the eyeball very protruding, with lids much swollen and firmly stretched over the projecting ball, which was half exposed. The conjunctiva was much discolored with blood extravasation, and was chemosed in a heavy fold, parallel with the free border of the lower lid. When the lids were drawn apart the eyeball protruded so conspicuously as to show the whole anterior half of the sphere, and presented the condition known as paraphimosis of the eyelids. When thus exposed, the whole front of the eyeball was entire, apparently without any injury to its outer walls. The anterior chamber was full of blood, and there was no perception of light. I was induced to palpate the eye, and found its tension decidedly minus. It was so soft that the cornea could be corrugated, a condition that could not exist in connection with the intra-ocular hemorrhage without a giving way of the eyeball and the escape of some of its contents. Upon this diminished tension and excessive blood extravasation, with great prominence of the eyeball, I diagnosed laceration of the posterior hemisphere of the sclerotic. To prevent future suffering, I advised enucleation, which operation was satisfactorily effected, under chloroform. After making the conjunctival section around the cornea, the opening of the capsule of Tenon to reach the tendon of the external rectus muscle allowed the escape of a quantity of dark fluid blood, and indicated the location of the scleral opening, which an examination of the eyeball after its removal confirmed. The rent, which was a large flap, opening in the outer wall of the sclerotic, was located in the posterior hemisphere of the eyeball, between the insertions of the external

rectus and the oblique muscles. The source of hemorrhage was choroidal. The blood, after filling the eyeball and displacing the lens and vitreous body which had escaped through the sclerotic rent, had freely effused itself into the orbital space, and by excessive infiltration had caused the extrusion of the eyeball.

This was the first case that I ever diagnosed, in the absence of any visible wound, as posterior laceration of the sclerotic coat of the eyeball, as I was surprised at the facility with which the diagnosis could be made. The eyeball, full of blood, with excessive extravasation under the conjunctiva, and accompanied by marked minus tension, made the diagnosis very positive, of escape of some of the eye contents through a wound concealed from view.

I had been very much surprised, on previous occasions, at the amount of bleeding which could take place from a sclero-choroidal wound. In one, a case in which the eyeball had been perforated by a fragment of iron over the insertion of the superior rectus muscle, I had much difficulty in checking the profuse bleeding from the wound, which saturated thick compresses. I was, therefore, quite prepared for the excessive extravasation in this case. The accident just reported, of posterior scleral laceration, was from a blow received, through the lid, upon the elastic eyeball, resulting in the giving way of the eye-coats at a point nearly opposite to that upon which the blow fell; clearly a case of laceration by counter stroke, and at a point where the eyeball is well supported by muscles as well as by the fatty cushion of the socket.

This accident was the sequel of a Christmas frolic. In accordance with the experience of every surgeon who finds rare cases running in company, the day after New Year another case of eye injury, nearly similar in its results, was brought to the hospital dispensary for treatment.

CASE 2.—I. F., aged 23, was wounded in the right eye, under the following peculiar circumstances: He and a friend were discharging pistols at a mark. While the patient was loading his revolver, his companion, standing near him, fired at a stone lying on the ground some ten feet in front of them. With the report of the pistol the injured man cried out that he had been shot, which remark caused much merriment, from the apparent impossibility of such an accident, as the shot had been fired away from him. Blood was seen, however, upon his face, oozing from a wound in the upper lid. The eye immediately commenced to swell. He complained of great pain, and said that his sight was knocked out. I saw him the day after the accident. The eyeball was very prominent, with excessive ecchymosis of the conjunctiva and with the anterior chamber full of blood. The pistol ball, in rebounding backward from the stone, had struck

the lid, but not with force enough to penetrate. The skin of the upper lid only was broken, and from it the blood had escaped. The eyelids were much stretched over the protruding eyeball, and a fold of discolored, chemosed conjunctival tissue seemed to fill up the palpebral cleft. I elevated the lid upon a retractor, and found that there was no wound in the front of the eyeball, and yet upon palpation I found the tension very much diminished, so that I could corrugate the cornea. With the case of a week before fresh in memory, I did not hesitate to make the diagnosis of posterior rupture of the sclerotic coat of the eyeball, and recommended immediate extirpation of the destroyed and painful organ, as the quickest means of obtaining relief from suffering and safety for the other eye. Under chloroform the eye was enucleated. The eye-shell was found full of coagulated blood. Its normal contents had escaped through a large rent in the upper part of the ball, which opening extended backward from the insertion of the superior rectus tendon. The tendon of the muscle restricted the laceration to the posterior hemisphere of the eyeball, and prevented the wound from being seen when the eye was examined, before the operation.

The laceration seemed to have started from the point of the eyeball upon which the blow impinged, and had extended directly backward. An explanation for this rare accident may be found in the fact that when the injury was received the wounded man was loading his pistol, and was looking down toward his hand. He, therefore, had not only the eyeball well covered by the upper lid, but in the extreme downward movement of the eye a large part of the upper hemisphere was rotated forward and exposed to receive the blow. The pistol ball must have been somewhat spent, as it only broke the skin of the lid; but the blow was sufficiently sudden and sharp to indent the eyeball to splitting, and thereby make the rent through which the contents of the eye were projected into the socket and incarcerated within the cone of muscles.

These two cases, while rare accidents, at least as far as the establishing of a diagnosis is concerned, differ in the immediate cause of the rent. In the first case the laceration in the eye-coat was not in a portion of the eyeball brought immediately under the influence of the blow. When the man was struck in the face by the chair, the bruised temple, brow and nose indicated that the blow was received directly across the eye, upon its front, through the medium of the lids. The common seat of laceration near the corneo-scleral juncture did not yield, although this was nearest to the surface receiving the blow. When the sudden flattening of the eyeball took place the rent occurred near the opposite pole of the eye impinged upon. In the second case the rent started at the point receiving the blow, and extended backward in the direction of the posterior pole, and at right angles to the so called circular laceration around the corneal periphery.

CORRESPONDENCE.

An Interesting Obstetrical Experience.

ED. MED. AND SURG. REPORTER:—

Very early one March morning, two years ago, I was called twelve miles northwest of this city, to attend Mrs. M., in labor. I had never seen Mrs. M. before, in fact had never heard of such a person before, and consequently knew nothing of her previous history, or very likely I would have invented some excuse to have remained at home. Before that Sunday had wholly passed I had been tempted fully a dozen times to commit suicide in order to escape the dreadful burden of my existence then and there.

Mrs. M. was a small, emaciated, frail, exceedingly nervous woman, about thirty years of age, and this was her second confinement. The first, I learned by snatches during the day, was attended by a physician in Illinois, from whence the family came, who devoted several days to its completion, and whose moral character, in consequence, was forever wrecked thereby.

Mrs. M. was in bed when I arrived, neatly encased in a highly embroidered night-gown, frilled and tucked, and inserted with lace, quite up to her ears, and surrounded by the entire matronly force of the neighborhood, her large, black, searching eyes blinking like live coals, and her tongue going at the rate of one hundred and twenty strokes to the minute. The manner in which she had all of those women employed in waiting upon her would have outwitted the ingenuity of mortal man. Her pains were not worth speaking of, but as they came straggling along at the rate of one every half hour, she dextrously managed to overcome the whole loss of valuable time during such intrusions by drawing down the side of her face furthest removed from her friends, and nodding and smiling and endeavoring to keep up an unflagging interest in the general conversation with the side nearest to them. Whenever I attempted to make an examination, in order to determine, from time to time, how we were progressing toward some ultimate hope, she flinched and screwed herself in bed, and made things so decidedly uncomfortable for the entire household, that I had to desist and take my observations mentally. Moreover, such efforts always "chased away the pains," as she expressed it, and she would lie, in consequence, for hours, frequently, without even a twitch to disturb the muscles of her face. I passed the first few hours, until dawn, in fact, in desperate efforts to count the "ticks" of the clock. I was never so thankful for dawn in my life.

If there had not been some material changes in her pains about this time I truly believe I would have gone insane; but, as it was, however, these became a little more severe and prolonged, and I was thereby saved from an untimely grave. Her tongue, however, never ceased for a moment its usual rate of speed, and her perception of touch was more keenly alive than ever. Vainly, time and again, did I endeavor to administer ergot. The mere smell of the drug brought her stomach in such close proximity to her mouth, and her tongue so nearly assuming an attack of St. Vitus'

dance, that I feared danger, and desisted, only to resume my mental observations. By the time the child was born, near nine o'clock that night, my hands were a mass of raw flesh, from my wrists to my elbows, from the prolonged pulling they had received from time to time at the hands of that woman; my coat was nearly off my back, in pieces; part of my suspenders gone; one whole sheet used up in the same pulling; the entire neighborhood completely worn out and speechless, from sheer exhaustion, and the woman herself only the ghost of a possibility. Moreover, the child was *atelectatic*; quite dead, I thought; placed in an old shawl for ten or fifteen minutes and laid by for dead, and only discovered to possess the faintest trace of life some time afterward, *accidentally*. By throwing cold water into his face frequently and repeatedly, however; by prolonged expansion and compression of the chest; by breathing into his mouth at intervals, and by spanking him lively over various portions of his body, sufficient life was manifested during a half hour's earnest work to insure safety. The child is well and hearty to-day, and I vaccinated him this summer. CHARLES H. MILLER, M.D.
Peabody, Kansas.

Administration of Ether.

ED. MED. AND SURG. REPORTER.

In your issue of August 5th, I read with interest and some profit a selection headed "Ether vs. Chloroform" (page 151). The subject is one of deep importance to every practitioner, but as country practitioners have not the same opportunity of making themselves acquainted, practically, with new methods, articles like the one referred to excite in them a greater degree of interest than in the city practitioner, whose opportunities for seeing are commensurate with his desires. The comparative merit and safety of ether are now established, beyond all reasonable doubt. So firm a hold has this fact taken of the mind of the profession, that I believe chloroform would be but rarely used, but for the facility of its administration, and conversely, the difficulties encountered in administering ether. Let us have a ready and satisfactory method of administering ether, and but few will adhere to chloroform.

In the selection, from the *British Medical Journal*, above referred to, the writer, who appears to have had large experience, recommends Clover's apparatus as the one thing to be desired in administering ether. Now, I know nothing about this rubber bag, nor any other bag of similar use or application. I cannot afford to go hundreds of miles to see one and witness its use in the hands of an expert. It is clear either cannot be successfully and economically administered on a towel.

Now, will somebody of large practical experience rise and tell us some practical things about giving ether. We country practitioners want to know what apparatus to use and how to use it. We also want to know its cost, for we are not all rich. Let no one rise to explain who has a patient bag of his own, or who has a friend who owns one.
ONTARIO.

The Electric Bath.

ED. MED. AND SURG. REPORTER:—

Some editorial criticisms on the use of the electric bath appeared in a weekly medical journal of your city, to which I replied; but as, evidently, the editor preferred his *ipse dixit* to enlightening his readers, he declined to admit my reply. As it is really a subject of general interest and therapeutic importance, I send to you the correction of the errors which that editor did not like to print, owing, no doubt, to an easily understood weakness of the human organization.

The portion of the editorial remarks which suggested this communication, was as follows: "The reason why it," the electric bath, "is regarded by all scientific electricians as a faulty method, is, that water offers such a powerful resistance to the passage of the current that the patient immersed receives too little to be effective." It must be admitted that theoretically this is entirely true, and that it is frequently reiterated by those who have little familiarity with the electrical bath. During the last few years I have seen considerable of the application of electricity, some 5000 applications in four years, nearly half of which were through the medium of the bath.

For the purposes of the bath the faradic current, almost exclusively, was used. The remark that the "patient immersed receives too little to be effective," shows ignorance. If the patients' nerves are to be relied upon to indicate the amount of electricity, and incredulous, stoical men may be taken as the subjects, as much electricity can be given with a large one cell induction battery as a patient can bear. A few—a very few, can stand the full strength of the instrument, and I have met with no one who has taken the bath, who denies the presence of a strong current when it has been desirable to give it. If "too little to be effective" be more than any ordinary person can stand, it must be admitted that the claims of the editorial are well founded. The strength of the current can, of course, be moderated from great intensity to as slight a degree as desired, precisely as out of the water.

For effectiveness, however, a large battery is not needed. I have replaced the ordinary stationary battery with a light, two-cell portable one, manufactured by the Galvano-Faradic Co., and the effect was nearly, if not quite, as marked as when the former was used. The experience with this current in the bath was detailed with some minuteness, in a recent number of the MEDICAL AND SURGICAL REPORTER, and scarcely requires repetition in this letter.

Since reading the editorial referred to, in order to clear away any possibility of doubt, and to secure, if possible, more convincing data, I have been making some experiments with the galvanic current and a galvanometer in connection with the tub. The distance across the tub, between the electrodes, was twenty to twenty-four inches, varying with the slant of the side.

The distance diagonally, as experimented with, four feet. The depth of the water, both with the person in and out of the tub, was kept at eleven inches. The electrodes extended

constantly nine inches into the water, and were of plates of copper; the tub being of wood. The body of the person when in the water was two to four inches from the electrodes, and the feet six or more inches. The temperature of the water was 94 Fah.; and the number of cups (modified Daniels) twenty. The galvanometer is of Trouvé make (Paris), and a good one. The result was as follows:—

Direct across tub without person in,	gal.	39 to 41
Diagonally " " "	"	34 to 36
Direct " with " "	"	42 to 43
Diagonally " " "	"	38½ to 40
Poles of battery touching out of water	"	45
Current passed through chest	"	17

The experiments were repeated several times the same day with the same person. The figures would naturally vary somewhat when tried on different persons. Precautions were taken to avoid every apparently possible chance for fallacy. The purity of the water must also modify the result of experiments.

Five conclusions seem patent, from the foregoing: 1st. That a large amount of electricity passes through the water. 2d. That more passes through the water than passes through the person out of the water. 3d. That the person in the water conducts better than the water alone (see also Beard & Rockwell's experiment). 4th. That at least the difference, as indicated by the galvanometer, between the amount of electricity which passes through the water alone and when the person is in it, must pass through the person; and as it passes through the body more readily than through the water, probably much more than that difference passes through the person. 5th. It seems reasonable to consider the skin the chief medium of resistance when administering electricity, and that the bath largely overcomes this. Also that the reason that the body conducts better than pure water is on account of the large percentage of salts which are contained in its liquids.

In conclusion, I should be very glad to demonstrate the facts here claimed for any physician who may choose to call upon me.

W. O. STILLMAN, M.D.

Saratoga Springs, N. Y.

NEWS AND MISCELLANY.

The Lehigh Valley Medical Association.

The second annual meeting of the Lehigh Valley Medical Association, was held at Allentown, August 16th. This Association is composed of physicians from Warren Co., N. J., and the counties of Northampton, Lehigh, Bucks, Carbon and Monroe, in this State.

Dr. P. Reichard, of Allentown, read a paper entitled "Cases of Surgery from my Note Book." Dr. J. Ewing Mears, of Philadelphia, read a paper on "Observations on the Value of Modern Methods in Abdominal Surgery, with the study of the Results in Twenty-four Cases of Abdominal Section." Dr. Traill Green read a paper for Dr. Hiram Corson, on "Smallpox." Dr. Amos Seip, of Easton, recited some of the sights he had seen during his recent trip abroad. He

saw a speculum two thousand years old, which had been exhumed from the ruins of Pompeii, and which was very much like those in use to-day.

The following officers were chosen for the ensuing year: President, Dr. Traill Green, of Easton; Vice-presidents, Dr. Alfred J. Martin, Allentown; Dr. Amos Seip, Easton; Dr. Osman, of Warren county, N. J., and Dr. Joseph Thomas, Quakertown; Secretary, Dr. Isaac Ott, of Easton; Treasurer, Dr. Abraham Stout, Bethlehem.

The new president was inducted into office, and on taking the chair spoke of the progress the science of medicine has made since he entered the profession, and how much more lucrative it is now than it formerly was. After passing a resolution of thanks to the medical fraternity of Lehigh county, the meeting adjourned.

Sanitary Precautions for Canning Establishments.

Dr. W. S. Forwood, at the request of the Board of Health and Medical Society of Harford County, Md., has prepared an address to the canners of the county on the hygiene of their establishments. After reciting the usual rules of cleanliness and care in selection of fruit and vegetables for canning, it is recommended that the refuse be daily scattered over the surrounding fields, by which means it will be disposed of, at the same time that it fertilizes the ground. Attention is called to the occasional presence of lead in the tin from which the cans are made, and it is suggested that glass jars should be used in preference. Fresh lime or plaster should be freely scattered, every day, about the premises. The address contains many wise suggestions.

Philadelphia County Medical Society Lectures.

The annual course of lectures under the auspices of this Society will be given during the winter of 1882-83, by Prof. Austin Flint, Senior, of New York, who will consider subjects relating to the physical diagnosis of internal diseases.

OBITUARY NOTICES.

PROF. F. M. BALFOUR.

The distinguished Professor of Animal Morphology in the University of Cambridge, recently lost his life in Switzerland, as the result of an accident. With the national love for Alpine climbing so characteristic of Englishmen, Dr. Balfour attempted what has been called a most dangerous feat, which has terminated so disastrously. The late Professor, though but thirty years of age, was the most distinguished graduate Cambridge has had since the time of Clifford, and in his own special field of embryology he was without a rival. The deceased naturalist was a Fellow of the Royal Society, Royal Medalist in 1881, M.A. and Fellow of Trinity College, Cambridge, LL.D. of Glasgow University, and President of the Cambridge Physiological Society. He was a younger brother of Mr. Arthur Balfour, M.P. for Hertford, and nephew of the Marquis of Salisbury.

DR. WILLIAM ATWATER.

Dr. William Atwater, a physician of New

York City, died at Centre Harbor, N. H., on the 18th of July, after a brief sickness with which he was stricken while on a visit to the White Mountains with his family. Dr. Atwater was born in Connecticut, about 65 years ago, and was educated for the medical profession. He was graduated at the College of Physicians and Surgeons, having Dr. Willard Parker as a preceptor during his student life. He served for several years as a physician in Bellevue Hospital and in the institutions on Blackwell's Island, and afterward engaged in a large private practice. The worry and strain of his professional work proved too great for his system, however, and fifteen years ago he relinquished active practice, and visited the coal and oil regions, becoming deeply interested in religious matters in that locality. He founded a Congregational church in Pennsylvania, and did much charitable work among the sick poor, whom he was accustomed to attend without fee. He leaves a family and many friends in New York by whom he was highly regarded.

DR. GEORGE R. DENNIS.

Dr. George R. Dennis died at his home in Somerset county, Md., August 13th. He was born April 8, 1822. Graduating at the University of Pennsylvania, he practiced medicine until 1855, when he retired, on account of ill health, since which time he has devoted himself to agricultural pursuits. He was in the State Senate in 1854, for the full term, and in 1867 was a member of the House of Delegates. In 1872 he was elected to the State Senate and resigned to take his seat in the United States Senate, to which he was chosen while a State Senator. Dr. Dennis was, in politics, formerly a Whig. He was a member of the Whig National Convention of 1856, which nominated Fillmore and Donelson. He was also a member of the Democratic National Convention of 1868, in New York, which nominated Seymour and Blair, and also of the Democratic National Convention which nominated Tilden and Hendricks.

DR. M. A. WILSON.

Dr. Milo A. Wilson, formerly of New York, died in Denver, Col., of Bright's disease, July 5th, 1882. He was born in Pittsburg in 1845, and was the son of the late Dr. R. A. Wilson, and brother of the late Oregon Wilson, the artist. He was at one time one of the surgeons of the Seventh Regiment and a member of the medical staff of Bellevue Hospital. While in that position he became particularly interested in the improvement of the condition of the insane, and made a number of interesting experiments to ascertain the effect of music upon the patients at Blackwell's and Randall's Islands. Dr. Wilson was the author of several medical books.

QUERIES AND REPLIES.

E. T. G. would be glad to have our readers give their experience in the treatment of spermatorrhoea; remedies used, etc.

E. W. McG., Canada.—Write to the London *Lancet* for the address you require.